# THE RELATIONSHIP BETWEEN SOCIAL MEDIA AND POLITICAL PARTICIPATION: AN ANALYSIS USING SURVEY DATA FROM BRAZIL, COLOMBIA, AND MEXICO

by
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# Abstract

Exposure to and engagement with political issues contributes to political participation by building more politically knowledgeable citizens, according to research findings. This study analyzes the relationship between recurrent use of social media as a political information source and different types of political participation. Specifically, this thesis examines the level of participation of individuals who frequently use Facebook and WhatsApp to access political information, compared to those who have an account but never consult this type of information through social media. The analysis focuses on three countries in Latin America: Brazil, Colombia, and Mexico. The results of a quantitative analysis using regression models based on the Americas Barometer's 2018/19 survey responses finds that frequent exposure to political content through Facebook and WhatsApp is positively associated with civic engagement, voter turnout, and participation in protests in the three countries studied.

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# Chapter 1. Introduction

The internet has changed the way we communicate, express our opinions and the way we engage and participate in politics[1]. In the political arena, internet use is currently embedded in electoral campaigns, policy-making, government communications, and citizen activism. Even before we experienced the full potential of the online world in politics, in the 2004 American presidential campaign, Democratic Party candidate Howard Dean's campaign manager confidently stated that "the internet is the most democratizing innovation we have ever seen, more so even than the printing press" [2]. He was not wrong.

Today, information can be spread and accessed faster, is cheaper, and can be 'created' by anyone with a smartphone connected to the internet. The creation of social networking sites (SNS) like Meetup.com, Facebook, Twitter, and WhatsApp opened new opportunities for citizens, policymakers, government officials, political parties, election candidates, and even traditional media outlets. They have allowed people who otherwise would never have met to do so, have discussions, get involved in groups focused on their interests, get organized (politically or otherwise), even from the most remote locations, and while far away from each other. It is hard to realize that just a bit over a decade ago, the possibility of having a "direct discussion" with someone not being present in the same physical location was only possible via telephone and in more limited scope, via videoconferencing.

[1] Gómez Castellanos, Rodolfo, y Manuel Ortiz Marín, y Luis Enrique Concepción Montiel. 2011. "Tecnologías de la comunicación y política 2.0". Espacios Públicos 14 (30): 72-84

[2] Hindman, Matthew Scott. The Myth of Digital Democracy. Princeton, New Jersey: Princeton University Press, 2009.

When asked about the reasons to be on SNS, users worldwide have expressed they do it to connect with friends (42%), staying "up to date with current activities and events" (41%), and to express an opinion (30%)[3]. The data reflects the relevance of these channels for personal expression and as a source of information. The fact that people can now engage with others about politics in the online world has expanded the notion we used to have about the "political public sphere"[4]. Before the internet, the environment created within communities or neighborhoods was the usual focal place for political discussions because their proximity allowed the discussion and expression of political opinions. Nowadays, since these discussions are no longer limited to the offline world, it is widely acknowledged that the internet expands citizens' opportunities to exchange information and ideas regarding matters "of common concern" with people beyond their local, physical surroundings.

Building a political public sphere "and the conditions for communication within it are essential for democracy"[5]. Among the top factors that foster interpersonal relations is news consumption, which also leads to political expression. Studies have also shown that "the relationship between talking about politics today and participating in the future is strong."[6]

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[3] GlobalWebIndex. "Most popular reasons for internet users worldwide to use social media as of 3rd quarter 2017". (2019). Retrieved from Statista on April 8, 2019 via https://www.statista.com/statistics/715449/social-media-usage-reasons-worldwide/

[4] Hindman, Matthew Scott. The Myth of Digital Democracy. Princeton, New Jersey: Princeton University Press, 2009.

[5] Dahlgren, Peter. 1995. Television and the Public Sphere : Citizenship, Democracy, and the Media. The Media, Culture & Society Series. London ;Thousand Oaks, Calif.: Sage Publications.

[6] De Zúñiga, Homero Gil, Eulàlia Puig-i-Abril, and Hernando Rojas. 2009. "Weblogs, Traditional Sources Online and Political Participation: An Assessment of how the Internet is Changing the Political Environment." New Media & Society 11 (4): 553. doi:10.1177/1461444809102960;
Semetko, H.A. and P.M. Valkeburg (1998) 'The Impact of Attentiveness on Political Efficacy: Evidence from a Three-year German Panel Study', International Journal of Public Opinion Research 10(3).;
Shah, D.V., J. Cho, W.P. Eveland Jr and N. Kwak (2005) 'Information and Expression in a Digital Age. Modeling Internet Effects on Civic Participation', Communication Research 32(5).;
Rojas, H. (2008) 'Strategy versus Understanding. How Orientations toward Political Conversation Influence Political Engagement', Communication Research 35(4).;

Furthermore, existing literature reveals that those exposed to political news are more prone to express their political opinions and will later be more politically involved[7].

Consequently, the internet and social networking sites' role in expanding or contributing to political involvement has been subject to numerous scholarly studies[8]. If there are tools that can strengthen political participation, it is important that users as well as the academics and policymakers know how they do it and under what conditions. This study aims to contribute to that field of inquiry by expanding what other scholars have done in the past.

This study considers how consumption of political information via SNS may encourage several forms of political participation: civic engagement, voting, and protests. While past research has mostly focused on North America, this analysis concentrates on three specific countries in Latin America: Brazil, Colombia, and Mexico. Furthermore, existing research focuses mainly on traditional social networking sites, such as Facebook and Twitter, leaving a relatively unexplored area: messaging platforms such as WhatsApp. There is a discussion concerning WhatsApp's classification as a social networking platform (SNS). This study considers this messaging application as SNS because it allows users to have a profile, publish in a timeline (stories), and share a status message with members of the persons' network (contacts).

For this study's purpose, online communication is not being contrasted against the use of traditional media, but as complementing source of information. In that regard, the integration of online and traditional communication can happen when discussions that started by "loosely-coupled individual and groups," who were communicating both online and offline, causes

[7] Bode, L., E. K. Vraga, P. Borah, and D. V. Shah. 2013. "A New Space for Political Behavior: Political Social Networking and its Democratic Consequences." Journal of Computer-Mediated Communication.

[8] Which are mentioned in the literature review.

"spillovers." Examples of this include the many Wikileaks cables which published information through the internet that was later replicated through traditional media or the Arab Revolutions, which refers to mobilizations that started online and had such an impact that they became agenda setters for the mass media.

The overall impact of social media on democracy continues to be an important area of study even though it might be too soon to have a conclusive characterization of it. Nonetheless, the fact that more than half of the world's population is estimated to use social media is sufficient reason to explore more thoroughly its effects on our political life[9]. It should be noted that this study does not aim to prove whether SNS are good or bad for democracy, but rather to expand the analysis of its relationship with political participation. This paper argues that individuals who frequently use Facebook and WhatsApp to access political information show an increased likelihood of political participation compared to those who never view political information through these platforms. To evaluate this hypothesis, the author ran numerous statistical regression models using 2018/19 survey responses conducted by the Americas Barometer.

Through quantitative analysis of data assembled by Americas Barometer furnished herein, the author has endeavored to expose a positive relationship between consuming political information via SNS and political participation that has not been adequately considered in existing social and political science literature focused on the effects of SNS use in Latin America.

The Americas Barometer was selected over other Latin American surveys because they have a standardized questionnaire and methodology replicated across all countries (20 for the

[9] Hootsuite & We Are Social (2019), "Digital 2019 Global Digital Overview," retrieved from https://datareportal.com/reports/digital-2019-global-digital-overview

2018-19 edition). This allows a comparative analysis to be made of the selected nations. Furthermore, the Americas Barometer enjoys a broad reputation in the field of public opinion polls.

## *Defining Political Participation*

Over the years, the social sciences have witnessed extensive interest in political participation, in many cases trying to find explanations for declining voter turnout levels in many countries worldwide. Nevertheless, political participation is more than just voting. Giving money to charities or a political party, signing petitions, being a member of a political party, joining or mobilizing others to join a protest are all actions that are in nature "political" because they aim to influence an action to achieve an outcome. While the subject has been widely studied, there is no widely accepted or agreed definition of political participation and what set of activities are to be included.

In conducting this study, the researcher has leveraged a definition for political participation presented by Teorell, et al. in 2007: "actions or activities by ordinary citizens that in some way are directed toward influencing political outcomes in society[10]". The aforementioned definition developed by Teorell et al. incorporates five dimensions: electoral participation, consumer participation, party activity, protest activity, and contact activity. Nonetheless, this study aims for a more encompassing analysis, so it uses a broader typology of behaviors proposed by Ekman et al in 2012[11]. Based on previous conceptual definitions (including Teorell's), Ekman and colleagues

[10] Teorell, J., Torcal, M., Montero, J. R. (2007). Political Participation: Mapping the Terrain. In J. W. van Deth, J. R. Montero, A. Westholm (Eds.). Citizenship and Involvement in European Democracies: A Comparative Analysis, pp. 334-357. London & New York: Routledge.

[11] Ekman, Joakim and Erik Amnå. 2012. "Political Participation and Civic Engagement: Towards a New Typology." Human Affairs 22 (3): 283-300. doi:10.2478/s13374-012-0024-1. http://www.degruyter.com/doi/10.2478/s13374-012-0024-1.

provide a more extensive set of activities that constitute political participation, which is divided into latent political participation: a) interest in politics and a sense of belonging to a group with a political agenda, and b) civic engagement, which includes voluntary work to improve conditions in the local community; and manifest political participation: a) voting, b) organized participation via membership in political parties, c) forms of activism such as signing petitions, participating in pacific protests or demonstrations, and being part of illegal and violent activities and protests[12]. Table 1 provides a full description of Ekman's typology of political participation.

Table 1. Latent and Manifest political participation

| Civil participation (latent political participation) | | Manifest political participation | | |
|---|---|---|---|---|
| **Involvement (attention)** | **Civic engagement (action)** | **Formal political participation** | **Activism (extra-parliamentary participation)** | |
| | | | **Legal** | **Illegal** |
| ***Individual forms*** | | | | |
| Personal interest in politics and societal issues<br><br>Attentiveness to political issues | Activities based on personal interest in and attention to politics and societal issues | Electoral participation and contact activities | Extra-parliamentary forms of participation: to make once voice heard or to make a difference by individual means (e.g. signing petitions, political consumption) | Politically motivated unlawful acts on an individual basis |
| ***Collective forms*** | | | | |
| A sense of belonging to a group or a collective with a distinct political profile or agenda<br><br>Life-style related politics (e.g. identity, clothes, music, food, values) | Voluntary work to improve conditions in the local community, for charity, or to help others (outside the own family and circle of friends) | Organized political participation: membership in conventional political parties, trade unions and organizations | Loosely organized forms or network-based political participation: new social movements, demonstrations, strikes, and protests | Illegal and violent activities and protests: demonstrations, riots, squatting buildings, damaging property, confrontations with the police or political opponents |

Source: Ekman et al. 2012

[12] Ekman, Joakim and Erik Amnå. 2012. "Political Participation and Civic Engagement: Towards a New Typology." Human Affairs 22 (3): 283-300. doi:10.2478/s13374-012-0024-1. http://www.degruyter.com/doi/10.2478/s13374-012-0024-1.

This study focuses on three specific activities that are included in Ekman's typology, which can be analyzed using surveys from the 2018-19 Americas Barometer, specifically in Brazil, Colombia, and Mexico. These activities are: 1) civic engagement via volunteer work to improve conditions in the local community; 2) electoral participation (voting); and 3) activism, more explicitly by joining a protest.

Chapters 1 and 2 present a critical literature review, background and context for the study, and the details about the methodology for the paper. Each of the following three chapters uses data collected by the Latin American Public Opinion Project via the Americas Barometer survey to analyze a particular aspect of political participation and how it is associated with the use of Facebook and WhatsApp.

Chapter 3 is dedicated to civic engagement. It examines the different approaches taken to defining 'civic engagement' and the lack of a common definition for this term. In the academic world, it has even been used interchangeably with 'political participation,' which is too broad and would make it impossible to measure. Therefore, the author provides an operational definition and specifies the types of activities found in the literature that can be considered 'civic engagement.' Having a clear understanding of the activity to be measured, the author proceeds to identify the survey questions relevant from the Americas Barometer and runs several regression models. Chapter 3 found that frequent exposure to information via Facebook and WhatsApp has a positive relationship with civic engagement with statistically significant results for all models except one (i.e., Facebook use in Mexico).

Chapter 4 aims to explore the relationship between frequent exposure to political content through Facebook and WhatsApp and electoral participation. While drivers of turnout are

numerous (e.g., age, gender, race, education, socioeconomic status, electoral system, party identification, among others), the two main factors involved in this study are socialization and access to information, key pillars of social networking sites. After an exhaustive statistical analysis, Chapter 4 illustrates a positive relationship between frequently consuming political information via Facebook and WhatsApp and electoral participation, with stronger results in Colombia. Moreover, the findings suggest that frequent use of SNS may have a stronger effect on political participation when it is a collective activity, not individual action, such as voting.

Lastly, Chapter 5 examines the relationship between frequent use of social media on offline protests' participation. The chapter explains the existent polarization in Latin America and, more specifically, the drivers of protests in recent years in Brazil, Colombia and Mexico. Moreover, it describes the impact of social media in the logistics and fundraising of organized protests. The statistical analysis performed indicates that individuals who frequently consume political information via social media are more likely to be involved in demonstrations.

## *Literature Review*

A review of the literature regarding the role of the internet and SNS as tools to foster deliberative democracy reveals two schools of thought: the "optimistic technological determinism" or the "pessimistic backlash".[13]. On one side, some scholars believe that online communication has undoubtedly expanded the exchange of ideas, increased the quality and amount of people participating in politics, and raised the voice of those in most need, such as minorities[14]. These changes mean opening the door for democratizing collective action and

[13] Shane, Peter M. Democracy Online: The Prospects for Political Renewal Through the Internet. New York: Routledge, 2004.
[14] Dahlgren, Peter. Media and Political Engagement: Citizens, Communication, and Democracy. Cambridge: Cambridge University Press, 2009.

political organizing by flattening bureaucratic structures[15]. Furthermore, in 2020, Lupu and colleagues found that citizens who are more engaged in SNS are more politically tolerant and more supportive of democracy in the abstract[16].

On the opposite side, other scholars believe that since the online world reflects political behavior that happens offline, the power structures replicate online as 'gatekeepers.' These scholars also believe the internet brought "new inequalities" to the table, and without universal access, it cannot be considered a tool that truly expands political participation[17]. The 2020 study conducted by Lupu et. al have also found that active SNS users trust less in public institutions such as the president, congress, the supreme court, local governments, the media, and elections[18]. Lupu and colleagues associate this distrust with the excessive amount of disinformation campaigns that circulate via SNS, especially in the context of electoral campaigns.

Countless dimensions can be discussed concerning social networking sites: (dis)trust, positive vs. negative messages, freedom of speech, inclusion, digital gap, among many others. For this study's purpose, existing theories that could explain the relationship between SNS use for political information and political participation will be evaluated. First and foremost is Robert Putnam's theory, which states that social interaction with family, friends, and the local community as members of a 'circle of trust' contributes to building social capital[19]. This basically means that

[15] Carty, Victoria. 2010. Wired and Mobilizing. Routledge Studies in Science, Technology, and Society. Hoboken: Taylor & Francis.
[16] Lupu, Noam, et al. "Social Media Disruption: Messaging. Mistrust in Latin America." Journal of Democracy, vol. 31 no. 3, 2020, p. 160-171. Project MUSE, doi:10.1353/jod.2020.0038.
[17] Margetts, Helen Z. "The Internet and Public Policy." In Media Power in Politics, by Doris A. Graber. Washington, DC: CQ Press, 2011.
[18] Lupu, Noam, et al. "Social Media Disruption: Messaging Mistrust in Latin America." Journal of Democracy, vol. 31 no. 3, 2020, p. 160-171. Project MUSE, doi:10.1353/jod.2020.0038.
[19] Putnam, Robert D. Bowling Alone: The Collapse and Revival of American Community. New York: Simon & Schuster, 2000.

the more knowledge an individual acquires about political events/issues, the higher the chances of this individual to be engaged in civic and political activities. Secondly, there is a "mobilization thesis"[20], which states that "communication practices have indirect effects through gains in political knowledge and political efficacy which result in participation."[21] Here, scholars argue that digital technology, such as SNS, creates cyberculture[22] and enlarges an individual social network[23] because it facilitates interaction and discussion of ideas among people who are far from each other and provides the ability to access and exchange information 24/7 at a reduced cost.[24] This results in increased chances of an individual being exposed to mobilizing information, such as invitations to community events, a boycott, a protest, a political party meeting, a debate, etc.

Furthermore, since SNS is considered a reflection of our offline world and that interaction among individuals we trust "facilitates the transfer of information and electoral norms," it is possible to assert that establishing political interactions and consuming political information online can effectively promote users' political participation in the non-virtual sphere[25].

Several scholars have conducted experiments from different perspectives. Many show the positive association of online media's informational use and political participation. Rojas and Puig-

[20] Abdulrauf-Salau, Aishat. 2018. "Conceptualization and Perspectives on Social Media Effects on Online Political Participation: A Review." Journal of Management & Social Sciences 7 (2): 394-408.
[21] de Zúñiga, Homero Gil, Eulàlia Puig-i-Abril, and Hernando Rojas. 2009. "Weblogs, Traditional Sources Online and Political Participation: An Assessment of how the Internet is Changing the Political Environment." New Media & Society 11 (4): 553. doi:10.1177/1461444809102960
[22] Ayala, Teresa. 2014. Redes Sociales, Poder y Participación Ciudadana. Revista Austral de Ciencias Sociales 26, 2014, pp. 23-48 Universidad Austral de Chile. Available at: https://www.redalyc.org/articulo.oa?id=45931862002
[23] de Zúñiga, Homero Gil, Eulàlia Puig-i-Abril, and Hernando Rojas. 2009. "Weblogs, Traditional Sources Online and Political Participation: An Assessment of how the Internet is Changing the Political Environment." New Media & Society 11 (4): 553. doi:10.1177/1461444809102960.
[24] Carty, Victoria. 2010. Wired and Mobilizing. Routledge Studies in Science, Technology and Society. Hoboken: Taylor & Francis.
[25] Boulianne, Shelley. 2015. Social media use and participation: a meta-analysis of current research, Information, Communication & Society", 18:5, 524-538, DOI: 10.1080/1369118X.2015.1008542

i-Abril have shown that informational uses of internet communication technologies (ICT) contribute to expressive forms of participation[26] and highlight its importance even when this interaction does not 'spill over' to the offline domain[27]. Similarly, they showed that blogs are an important part of the digital 'new media' because they too contribute to access and exchange information, behavior that has resulted in an "important predictor of political engagement in the online domain"[28].

Teresi and Michelson contributed to this field by demonstrating, through a controlled exercise, that exposure to political messages through Facebook promotes electoral participation[29], just as anticipated by Tolbert, C. and McNeal, R., who found that localities in which individuals had internet access and actively sought news online showed increased electoral participation, and more actively engaged citizens[30]. Similarly, Navia and Ulriksen, who analyzed four different national surveys in Chile, found that news consumption via social media reinforces a person's predisposition to vote.[31]

[26] Rojas, Hernando, and Eulalia Puig-i-Abril. 2009. "Mobilizers Mobilized: Information, Expression, Mobilization and Participation in the Digital Age." Journal of Computer-Mediated Communication 14 (4): 902-927. doi:10.1111/j.1083-6101.2009.01475.x.

[27] Puig-i-Abril, Eulalia and Hernando Rojas. 2007. "Being Early on the Curve: Online Practices and Expressive Political Participation." International Journal of Internet Science 2 (1): 28-44.

[28] de Zúñiga, Homero Gil, Eulàlia Puig-i-Abril, and Hernando Rojas. 2009. "Weblogs, Traditional Sources Online and Political Participation: An Assessment of how the Internet is Changing the Political Environment." New Media & Society 11 (4): 553. doi:10.1177/1461444809102960.

[29] Teresi, Holly and Melissa R. Michelson. 2015. "Wired to Mobilize: The Effect of Social Networking Messages on Voter Turnout." Social Science Journal 52 (2): 195-204. doi:10.1016/j.soscij.2014.09.004

[30] Tolbert, Caroline J. and Ramona S. McNeal. 2003. "Unraveling the Effects of the Internet on Political Participation." Political Research Quarterly 56 (2): 175.

[31] Navia, P. and Ulriksen, C. (2017). Tuiteo, luego voto. El efecto del consumo de medios de comunicación y uso de redes sociales en la participación electoral en Chile en 2009 y 2013. Cuadernos.info, (40), 71-88. https://doi.org/10.7764/cdi.40.1049

Valenzuela et al. found a positive relationship between the intensity of Facebook use and life satisfaction, social trust and civic engagement"[32]. Xenos et al. and Bode also refer to the intensity of the political use of SNS as a tool to predict increased political engagement[33]. Furthermore, in a later study, Bode et al. revealed the positive outcomes of SNS use. In this 2013 study, they go a bit further than in 2012, suggesting that online platforms such as Facebook could very well serve as a tool to encourage political involvement, contributing to building a generation of engaged citizens in the future[34]. This potential of SNS use, together with the theory that "voting is contagious," is very promising. Schmitt-Beck and Mackenrodt show that individuals who learned that friends and family would be going to the polls were more likely to be mobilized by their example[35]. Nickerson also demonstrated that "interpersonal influence shapes the behaviors of people living within the same household" [36]. Therefore, SNS could serve as a tool to promote -and spread- positive civic behaviors such as volunteering, activism, and voting in Latin America. Kraner and Valenzuela et al. claim that while political use of SNS is positively associated with political participation, this should not be considered the magic solution to apathy and political

[32] Valenzuela, Sebastián, Namsu Park, and Kerk F. Kee. 2009. "Is there Social Capital in a Social Network Site?: Facebook use and College Students' Life Satisfaction, Trust, and Participation." Journal of Computer-Mediated Communication 14 (4): 875-901. doi:10.1111/j.1083-6101.2009.01474.x.

[33] Xenos, Michael, Ariadne Vromen, and Brian D. Loader. 2014. "The Great Equalizer? Patterns of Social Media use and Youth Political Engagement in Three Advanced Democracies." Information, Communication & Society 17 (2): 151-167. doi:10.1080/1369118X.2013.871318.;
Bode, Leticia. 2012. "Facebooking it to the Polls: A Study in Online Social Networking and Political Behavior." Journal of Information Technology & Politics 9 (4): 352-369. doi:10.1080/19331681.2012.709045. https://doi.org/10.1080/19331681.2012.709045

[34] Bode, L., E. K. Vraga, P. Borah, and D. V. Shah. 2013. "A New Space for Political Behavior: Political Social Networking and its Democratic Consequences." Journal of Computer-Mediated Communication.

[35] Schmitt-Beck, Ruediger and Christian Mackenrodt. 2010. "Social Networks and Mass Media as Mobilizers and Demobilizers: A Study of Turnout at a German Local Election." Electoral Studies 29 (3): 392-404. doi:10.1016/j.electstud.2010.03.011.

[36] Nickerson, David W. "Is Voting Contagious? Evidence from Two Field Experiments." The American Political Science Review 102, no. 1 (2008): 49-57. Accessed September 23, 2020. doi:10.2307/27644497.

disenchantment[37], particularly when the tone and type of information to which individuals are exposed matter, as is reflected by Shah et al. who revealed that when citizens receive negative political ads, they seek less information[38].

While Shah et al. focused on negative political ads and not on 'fake news', their findings could shed some light in terms of the impact of disinformation campaigns. Social networking sites are a fertile environment for false information, "given their lack of editorial review that traditional media have"[39]. Nonetheless, scholarly research is still nascent. For instance, two studies from the same election (United States, 2016) had contracting results. While Guess, Nyhan and Reifler show that selective exposure has an effect on social media consumption, and people may consume false news that reinforce their political preferences[40], another study, from Alcott and Gentzkow has found that the "information diet" from social media platforms such as Facebook, can modify the political views, attitudes and/or political preferences of its users[41].

Finally, it is worth mentioning that Katz, J. et al and Barredo et al. explored the way SNS impacted politics from the side of electoral campaigns, reflecting its positive contribution to mobilization and fundraising efforts, as well as the opportunity to generate a space to 'listen' to the electorate and communicate with constituents. Notwithstanding, they both find that while the

[37] Kraner, Mariah. 2012. Social Media and Voter Participation. Hersey; 701 E Chocolate Ave, Ste 200, Hersey, Pa 17033-1240 Usa: Igi Global. doi:10.4018/978-1-4666-1740-7.ch079.
[38] Shah, Dhavan V., Jaeho Cho, Seungahn Nah, Melissa R. Gotlieb, Hyunseo Hwang, Nam-Jin Lee, Rosanne M. Scholl, and Douglas M. McLeod. 2007. "Campaign Ads, Online Messaging, and Participation: Extending the Communication Mediation Model." Journal of Communication 57 (4): 676-703. doi:10.1111/j.1460-2466.2007.00363.x.
[39] Inclán, María and Pulido, Amalia. 2020. "Fake News as Negative Campaign Ads in Mexico's 2018 Presidential Elections". Working paper.
[40] Guess, Andrew M., Nyhan, Brendan, and Reifler, Jason. 2018. "Selective Exposure to Misinformation: Evidence from the consumption of fake news during the 2016 U.S. presidential campaign". Available at https://about.fb.com/wp-content/uploads/2018/01/fake-news-2016.pdf
[41] Allcott, Hunt, and Gentzkow, Matthew. 2017. "Social Media and Fake News in the 2016 Election." Journal of Economic Perspectives, 31 (2): 211-36.

opportunity exists, two-way communications between candidates and citizens are not the norm but the exception,[42] and that in some countries like Ecuador, at the time of the study, political issues and events were not really part of the online domain.[43]

[42] Barredo Ibanez, Daniel, Jose Rivera, and Alex Amezquitan. 2015. "La Influencia De Las Redes Sociales En La Intención De Voto. Una Encuesta a Partir De Las Elecciones Municipales De Ecuador 2014. " 12 (1): 136-154.
[43] Katz, James E., Michael Barris, Anshul Jain, and Anshul Jain. 2013. The Social Media President : Barack Obama and the Politics of Digital Engagement. New York: Palgrave Macmillan.

# Chapter 2. Background, Research Question, and Methodology

Internet penetration differs by region and within countries. In 2019, the International Telecommunication Union (ITU)[44] estimated that 4.1 billion people had access to the internet, representing over 53% of the global population[45]. Furthermore, the World Bank reports that, as of 2018, 65.8% of the population in Latin America and the Caribbean had access to the internet[46]. The country with the highest internet penetration in the region is Brazil. The 2018/19 Americas Barometer reveals that 73.7% of Brazilians have home internet service (including cellphones or tablets). On the other hand, Mexico and Colombia report significantly less access to the web at 45.7% and 48.2%, respectively[47].

More importantly, the main activity of internet users is social networking, a trend seen globally[48]. This is translated into over 3.8 billion active social networking sites users on the planet. Hootsuite & We Are Social report that, in 2019, the average time spent on social media (in any device) by people aged 16 to 64 was approximately two hours and twenty-four minutes per day. When looking at the three countries of analysis, we find that in Colombia, users spend three hours and forty-five minutes, in Brazil, three hours and thirty minutes, and three hours and twenty-five minutes in Mexico[49].

[44] ITU is the United Nations specialized agency for information and communication technologies – ICTs
[45] International Telecommunication Union. "Number of internet users worldwide from 2012-2018". (2019). Retrieved from Statista on April 8, 2019 via: https://www.statista.com/statistics/273018/number-of-internet-users-worldwide/
[46] Ibid.
[47] Zechmeister, Elizabeth J., and Noam Lupu (Eds.). 2019. Pulse of Democracy. Nashville, TN: LAPOP.
[48] GlobalWebIndex. "Most popular reasons for internet users worldwide to use social media as of 3rd quarter 2017". (2019). Retrieved from Statista on April 8, 2019 via https://www.statista.com/statistics/715449/social-media-usage-reasons-worldwide/
[49] As a reference, the time spent in SNS in the United States is approximately two hours.

While 31.50% of citizens polled by LAPOP in 2018/19 were not social media users, 68% of those who did have a social media account in Latin America reported using these platforms a few times a week or daily[50]. Table 2 below provides detailed information on SNS use intensity of citizens of Brazil, Colombia, and Mexico. Data includes the use of Facebook, WhatsApp, and Twitter. High users are individuals who use SNS daily or a few times a week. Low users mean they access the platform a few times a month or a few times a year. Finally, non-users are individuals who reported not having a social media account.

Table 2. Social Media Usage in Brazil, Colombia, and Mexico

| Country | High Social Media Use | Low Social Media Use | Non-Users |
|---|---|---|---|
| Brazil | 77.21 % | 2.41 % | 20.38 % |
| Colombia | 65.83 % | 3.75 % | 30.42 % |
| Mexico | 58.51 % | 2.74 % | 38.75 % |

Source: self-elaboration with data from Latin America Public Opinion Project. 2019. Appendix Material for 2018 - 19 AmericasBarometer Report - Comparative Chapters. Available at: https://www.vanderbilt.edu/lapop/ab2018/Appendix_Material_for_2018-19_AmericasBarometer_Report-Comparative_Chapters_10.13.19.pdf

WhatsApp and Facebook are the most used social networking sites in Latin America. As can be seen in Table 3 below, among the selected countries, Brazil has the highest amount of citizens that use WhatsApp (76.2%) and Facebook (59.8%), followed by Colombia (62.7% use WhatsApp and 58.6% use Facebook) and Mexico (55.1% use WhatsApp and 47.9% use Facebook). Furthermore, Table 3 also reveals that Twitter penetration in Latin America is still emerging. In fact, the amount of non-users[51] is so high that it is not possible to use this data to predict political behaviors. Therefore, Twitter usage is not considered in this study.

[50] Latin America Public Opinion Project. 2019. Appendix Material for 2018 - 19 AmericasBarometer Report - Comparative Chapters. Available at: https://www.vanderbilt.edu/lapop/ab2018/Appendix_Material_for_2018-19_AmericasBarometer_Report-Comparative_Chapters_10.13.19.pdf

[51] Non-users in Mexico: 1441; non-users in Brazil: 1358; non-users in Colombia: 1468.

Table 3. Internet Access and Social Media Usage by Country, 2018/19

| Countries | Smart-phone ownership | Cellphone in home | Home internet service | WhatsApp users | Facebook users | Twitter users |
|---|---|---|---|---|---|---|
| | (%) | (%) | (%) | (%) | (%) | (%) |
| Argentina | 65.0 | 92.5 | 70.9 | 78.9 | 67.3 | 12.9 |
| Bolivia | – | 93.7 | 42.1 | 63.5 | 57.9 | 5.6 |
| Brazil | 54.0 | 95.4 | 73.7 | 76.2 | 59.8 | 8.5 |
| Chile | 72.0 | 97.0 | 70.3 | 75.5 | 62.9 | 9.2 |
| Colombia | 56.0 | 92.8 | 48.2 | 62.7 | 59.6 | 10.5 |
| Costa Rica | – | 96.3 | 67.9 | 81.6 | 66.6 | 8.0 |
| Dom. Rep. | – | 88.9 | 42.7 | 68.2 | 61.9 | 9.5 |
| Ecuador | – | 90.5 | 51.4 | 60.2 | 66.9 | 11.2 |
| El Sal. | – | 86.9 | 35.5 | 56.0 | 56.2 | 6.7 |
| Guatemala | – | 81.6 | 23.9 | 47.6 | 43.2 | 6.5 |
| Honduras | – | 86.4 | 25.1 | 46.9 | 44.6 | 4.8 |
| Jamaica | – | 94.2 | 55.0 | 68.1 | 45.9 | 4.5 |
| Mexico | 42.0 | 82.2 | 45.7 | 55.1 | 47.9 | 7.6 |
| Nicaragua | – | 84.5 | 22.2 | 47.7 | 48.1 | 5.8 |
| Panama | – | 84.0 | 35.2 | 56.7 | 34.6 | 5.8 |
| Paraguay | – | 95.8 | 44.1 | 69.3 | 60.5 | 8.0 |
| Peru | 41.0 | 86.5 | 37.5 | 58.6 | 61.4 | 7.6 |
| Uruguay | – | 95.6 | 70.0 | 80.0 | 66.5 | 9.8 |

Note: Smartphone ownership data come from Pew Research Center (2018); all other data are from the AmericasBarometer 2018/19.

Source: Zechmeister, Elizabeth J., and Noam Lupu (Eds.). 2019. Pulse of Democracy

## *Research Question and Methodology*

This study analyzes the relationship between political participation and regular use of social media as a source of political information in Brazil, Colombia, and Mexico. It aims to explore whether frequent exposure to political content through Facebook and WhatsApp is associated with increased political participation in Brazil, Mexico, and Colombia. It analyzes three specific behaviors: civic engagement, voting, and protesting.

As described in the literature review, evidence shows that exposure and interaction with political issues through SNS contributes to political participation by building more politically knowledgeable citizens. We also know that an environment of trust in which users can exchange

ideas freely at the comfort of their own house, school, or office might very well serve to normalize and encourage political expression.

Therefore, it is expected to find that individuals who frequently use Facebook and WhatsApp to access political information show an increased likelihood of political participation compared to those who never view political information through these platforms.

To examine citizens' political behaviors and confirm -or reject- the hypothesis, an analysis of data from the 2018-2019 Americas Barometer surveys in Brazil, Colombia, and Mexico was conducted. The Americas Barometer was selected over other Latin American surveys because they have a standardized questionnaire and methodology replicated across all countries (20 for the 2018-19 edition). This allows us to make a comparative analysis of the selected nations. Furthermore, the Americas Barometer enjoys a broad reputation in the field of public opinion polls.

Brazil, Colombia, and Mexico were selected because all three held presidential elections in 2018. The types of use and tools available via the different social media platforms can fluctuate significantly between years. Therefore, it was important to select countries that would be somehow comparable in terms of what digital instruments were available at the survey time. Furthermore, since one of the independent variables refers to electoral participation, it is important to consider the different types of elections and electoral systems in Latin America. First, the turnout of a local election is not comparable to a presidential one. Hence, all countries chosen held the same type of election. Moreover, it is important to recognize that, in countries where voting is mandatory, turnout tends to be significantly higher, and the drivers for electoral participation might be harder to identify. In order to analyze the relationship between the use of

social media and turnout in different electoral systems, this study analyses three different scenarios: one country where voting is mandatory and turnout is high (Brazil), one country with 'average' turnout (Mexico), and one country that is known to have consistently low levels of turnout (Colombia).

The 2018/19 Americas Barometer survey was conducted between 2018 and 2019. This study will make a comparative analysis employing data (survey responses) from Brazil (n = 1,498), Colombia (n = 1,663), and Mexico (n = 1,580). According to the Technical Information provided by Vanderbilt University, "the sampling frame covers 100% of the eligible voting age population in the surveyed country. This means that every eligible person in the country has an equal and known chance of being included in the survey sample"[52]. The reported sampling error for all three countries is 2.5%. Table 4 below provides information regarding fieldwork dates as reported by Vanderbilt University and the date of each presidential election.

[52] Latin America Public Opinion Project. 2019. Technical Information for 2018 - 19 AmericasBarometer Report. Available at: https://www.vanderbilt.edu/lapop/AmericasBarometer_2018-19_Technical_Report_W_102919.pdf

Table 4. Surveys' Technical Information

| Country | Sample size | Sampling Error | Fieldwork dates |
|---|---|---|---|
| Brazil | 1,498 | 2.5% | January 29, 2019 – March 3rd, 2019 |
| Colombia | 1,663 | 2.5% | September 10, 2018 to December 27, 2018 |
| Mexico | 1,580 | 2.5% | January 10, 2019 to March 27, 2019 |

Source: Own elaboration based on data provided by the Americas Barometer – Latin American Public Opinion Project (LAPOP), www.LapopSurveys.org.

## *Variables of interest*

Table 5 below provides the definition and sources of the main variables in the data. A full description is included as an appendix. LAPOP variable names indicated with (*) are transformations of the original variable. The coding of the variables in the data is indicated in the variable Description.

Table 5. Description of Main Variables

| Variable name | Type | Range | LAPOP name | Definition |
|---|---|---|---|---|
| Country | <character> | . | (*) pais | Country name |
| Civic Engagement | <numeric> | [0, 1] | (*) cp8 | Do you attend meetings of a community improvement committee or association?<br>Attend once a year, or more = 1<br>Never attend = 0. |
| Turnout | <numeric> | [0, 1] | (*) vb2 | Did you vote in the last presidential elections?<br>Yes = 1<br>No = 0 |
| Protests | <numeric> | [0, 1] | (*) prot3 | In the last 12 months, have you participated in a demonstration or protest march?<br>Participated = 1<br>Otherwise = 0 |
| Facebook Group | <numeric> | [1, 4] | | Use of Facebook to see political information: |

| | | | |
|---|---|---|---|
| | | | No User = 1, do not have an account<br>Never = 2, do not see political content<br>Lo-Freq. = 3, see political content a few times a month/year<br>Hi-Freq. = 4, see political content daily or a few times a week |
| Facebook Label | <character> | . | Use of Facebook to see political information (label) |
| WhatsApp Group | <numeric> | [1, 4] | Use of WhatsApp to see political information:<br>No User = 1, do not have an account<br>Never = 2, do not see political content<br>Lo-Freq. = 3, see political content a few times a month/year<br>Hi-Freq. = 4, see political content daily or a few times a week |
| WhatsApp Label | <character> | . | Use of WhatsApp to see political information (label) |
| Facebook Non-Users | <numeric> | [0, 1] | Use of Facebook to see political information:<br>No User = 1<br>Otherwise = 0 |
| Facebook Never | <numeric> | [0, 1] | Use of Facebook to see political information:<br>Never see political content = 1<br>Otherwise = 0 |
| Facebook Lo-Frequency | <numeric> | [0, 1] | Use of Facebook to see political information:<br>Lo-Freq. = 1 (i.e., see political content a few times a month/year)<br>Otherwise = 0 |
| Facebook Hi-Frequency | <numeric> | [0, 1] | Use of Facebook to see political information:<br>Hi-Freq. = 1 (i.e., political content daily or a few times a week)<br>Otherwise = 0 |
| WhatsApp Non-Users | <numeric> | [0, 1] | Use of WhatsApp to see political information:<br>No User = 1<br>Otherwise = 0 |
| WhatsApp Never | <numeric> | [0, 1] | Use of WhatsApp to see political information:<br>Never see political content = 1 |

| | | | | |
|---|---|---|---|---|
| | | | | Otherwise = 0 |
| WhatsApp Lo-Frequency | <numeric> | [0, 1] | | Use of WhatsApp to see political information:<br>Lo-Freq. = 1 (i.e., see political content a few times a month/year)<br>Otherwise = 0 |
| WhatsApp Hi-Frequency | <numeric> | [0, 1] | | Use of WhatsApp to see political information:<br>Hi-Freq. = 1 (i.e., political content daily or a few times a week)<br>Otherwise = 0 |
| Years of Education | <numeric> | [0, 18] | ed | How many years of schooling have you completed? |
| Age | <numeric> | [16, 92] | q2 | How old are you? (in years) |
| Female | <numeric> | [0, 1] | (*) q1 | Sex (recorded, but not asked)<br>Female = 1<br>Otherwise = 0 |
| Urban area | <numeric> | [0, 1] | (*) ur | Type of area<br>Urban area = 1<br>Otherwise = 0 |
| Attentiveness to news | <numeric> | [1, 5] | gi0n | About how often do you pay attention to the news, whether on TV, the radio, newspapers or the internet?<br>Daily = 1<br>A few times a week = 2<br>A few times a month = 3<br>A few times a year = 4<br>Never = 5 |
| Party identification | <numeric> | [0, 1] | (*) vb10 | Do you currently identify with a political party?<br>Yes = 1<br>No = 0 |
| Internet at home | <numeric> | [0, 1] | r18 | Could you tell me if you have Internet in your home? (included phone or tablet)<br>Internet at home = 1<br>Otherwise = 0 |

Independent Variables:

- Frequency of use of Facebook to view political information (smedia3).
- Frequency of use of WhatsApp to view political information (smedia9).

As can be seen in Table 5, the responses were classified into three different groups, according to the frequency with which individuals view political content on social media: 1) Non-users (represented using a horizontal -dotted- line in the prediction graphs); 2) Never; 3) Low, and 4) High. This classification follows similar criteria as a recent study by Lupu et al., which analyzes variables from the Americas Barometer.

Dependent Variables:

The dependent variables are different types of political behaviors that can be analyzed using data from the Americas Barometer. Each chapter examines one of the following variables: civic engagement, voter turnout, and participation in protests. Details of these variables can be found in Table 5 above.

To provide readers with detailed information regarding the scope of data that will be analyzed in each chapter, Table 6 describes the frequency of use of Facebook and WhatsApp in each of the countries under analysis.

Table 6. Facebook and WhatsApp users in Mexico, Brazil, and Colombia by frequency of use for political information

| Frequency of use | Facebook | | | WhatsApp | | |
|---|---|---|---|---|---|---|
| | Mexico | Brazil | Colombia | Mexico | Brazil | Colombia |
| No-user | 807 | 592 | 655 | 701 | 373 | 604 |
| Never | 116 | 167 | 255 | 480 | 378 | 535 |
| Low Frequency | 103 | 146 | 190 | 144 | 179 | 192 |
| High Frequency | 535 | 571 | 548 | 243 | 560 | 325 |

Source: Own elaboration based on data provided by the Americas Barometer – Latin American Public Opinion Project (LAPOP), www.LapopSurveys.org.

This paper discusses the relationship between consuming political information via social media use and political participation. Throughout the document, unless stated otherwise, all comparisons and analysis are intended to refer to high-frequency use of SNS to access and/or

exchange political information. This paper differs from others because a key part of the analysis is the way individuals use SNS. Therefore, the focus of analysis in each chapter comprises the users who view or share political information through social media.

A logistic regression model was conducted to predict whether political participation levels increase as individuals are more exposed to political information via WhatsApp and Facebook. There is a regression model for each type of activity (i.e., civic participation, voting, and protesting), and the two social networking sites being analyzed for each country: Brazil, Colombia, and Mexico. The use of logistic regressions was selected over other methods because the dependent variables are all dichotomous. The baseline in all models are individuals who never use the platform to view political information. The models do not compare non-users vs. users as the aim of this study is to predict the effect of the frequency of exposure to political information, not the mere use of a social platform. Nonetheless, the group of individuals who are not users of the platforms was included in the models because it becomes useful for the predictions.

Models were run with and without variables of control as part of the robustness check. In almost all cases, statistically significant results remained even after controlling for years of education, age, being a female, residing in an urban area, party identification, having internet at home, and level of attentiveness to the news. Exceptions include electoral participation in Brazil, which revealed statistically significant results for Facebook and WhatsApp but changed after controlling for the variables described before. The model results without variables of control are provided as an appendix.

Each chapter provides a prediction of the level of participation for the mean age of the sample population in each country (37 for Brazil and Colombia and 39 for Mexico). Predictions are based on the intensity of use of SNS for political purposes (never, low and high). The confidence level for the predictions is 90 percent in all cases.

Among the limitations of this study, is that the survey data analyzed is not sufficient to prove causality. In other words, the author cannot determine that high consumption of political information via social media *causes* increased levels of participation. As Bode explains in her Facebooking to the Polls study, while several models reveal a positive relationship, it is impossible to determine the "direction of causality". "It might be that political behavior leads to more intense use of Facebook [and WhatsApp, in this case] as it is that Facebook [and WhatsApp] leads to political behavior"[53]. While causality could be investigated utilizing controlled longitudinal studies, such an experiment would be cost prohibitive for a student and would be rather complex in the context of the current pandemic.

Furthermore, it is important to highlight that analyzing survey responses is never completely accurate. First, because it is not based on direct observation of the author of this study, and second, surveys rely on the individuals' capacity to recollect their behaviors and trust that their responses are as close as possible to their actions. This issue is discussed in more detail in Chapter 4 (electoral participation).

[53] Bode, Leticia. 2012. "Facebooking it to the Polls: A Study in Online Social Networking and Political Behavior." Journal of Information Technology & Politics 9 (4): 352-369. doi:10.1080/19331681.2012.709045. https://doi.org/10.1080/19331681.2012.709045

# Chapter 3. Relationship Between Social Media and Civic Engagement

Just as the academic world cannot agree on a single definition for 'political participation,' the term 'civic engagement' also has numerous definitions. Moreover, in many cases, civic engagement is used interchangeably with political participation, in an "all-encompassing" approach covering everything from reading a newspaper to voting, volunteering, or giving money to charity. Among the scholars who use this approach is Robert Putnam in "Bowling Alone" as explained by Ekman and Amnå[54] and Adler and Goggin[55].

In-depth research of existing literature does provide more specific definitions of the term. While they continue to change to incorporate both different forms of activities and new ways of participation (as we evolve into the digital world, for instance), the main difference is the focus each author gives to the term. For instance, Diller focuses on community service[56], Van Benshoten pays more attention to the collective part of it vs. an individual activity[57], Hollister also believes that civic engagement should be looked as a collective activity but indicates an active citizen is also involved in more aspects of the community than only government matters. Moreover, Adler and Goggin explain that the Minnesota Vital Aging Network considers civic engagement requires a

[54] Ekman, Joakim and Erik Amnå. 2012. "Political Participation and Civic Engagement: Towards a New Typology." Human Affairs 22 (3): 283-300. doi:10.2478/s13374-012-0024-1. http://www.degruyter.com/doi/10.2478/s13374-012-0024-1.

[55] Adler, Richard P. and Judy Goggin. 2005. "What do we Mean by "Civic Engagement"?" Journal of Transformative Education 3 (3): 236-253. doi:10.1177/1541344605276792. https://doi-org.proxy1.library.jhu.edu/10.1177/1541344605276792.

[56] Diller, E. C. (2001). Citizens in service: The challenge of delivering civic engagement training to national service programs. Washington, DC: Corporation for National and Community Service.

[57] Van Benshoten, E. (2001). Civic engagement for people of all ages through national service. Unpublished manuscript.

component of public leadership. At the same time, David Crowley incorporates an element of social change into his definition. Furthermore, they explain that the Center for Civic Participation focuses more "on the political and collective dimensions by referring to the historical roots of the words:

> *The Latin word civis has found its way into two words in our language, city, and citizen. Civic engagement is about rediscovering politics, the polis's life, the city where men and women speak and act together as citizens. The word civic, when connected to engagement, implies work, work that is done publicly and benefits the public and is done in concert with others"*[58].

Ehrlich has an interesting approach; he suggests that 'making a difference' should be the driving factor: "Civic engagement means working to make a difference in the civic life of our communities and developing the combination of knowledge, skills, values and motivation to make that difference. It means promoting the quality of life in a community, through both political and non-political processes" [59]. While this seems to be a workable definition for this study, it would be impossible to determine whether the individual who reported participating in a meeting to improve the community has gained knowledge, skills and is looking to make an impact and not because of other matters -such as gaining volunteer experience for their resume, meeting new people, or even as part of a political campaign.

This study will use Adler and Goggin's definition, who consider civic engagement as "the ways in which citizens participate in the life of a community in order to improve conditions for

[58] Adler, Richard P. and Judy Goggin. 2005. "What do we Mean by "Civic Engagement"?" Journal of Transformative Education 3 (3): 236-253. doi:10.1177/1541344605276792. https://doi-org.proxy1.library.jhu.edu/10.1177/1541344605276792.
[59] Ehrlich, Thomas (2000). Civic Responsibility and Higher Education. Phoenix, Ariz.: Oryx Press.

others or to help shape the community's future."[60] Having an operational definition does not seem enough for this study. It is necessary to go somewhat further to indicate what specific behaviors are considered in this definition. While the authors do not specify their own set of activities that are to be considered as civic engagement, they do provide a list of 19 "core indicators of engagement" from a survey conducted by the University of Maryland[61], as shown in Table 6 below.

Table 7. Core Indicators of Engagement

| Civic Indicators | Electoral Indicators | Indicators of Political Voice |
|---|---|---|
| Community problem solving | Regular voting | Contacting officials |
| Regular volunteering for a nonelectoral organization | Persuading others | Contacting the print media |
| Active membership in a group or association | Displaying buttons, signs, stickers | Contacting the broadcast media |
| Participation in fund-raising run/walk/ride | Campaign contributions | Protesting |
| Other fund-raising for charity | Volunteering for a candidate or political organizations | E-mail petitions |
| | | Written petitions |
| | | Boycotting |
| | | Buycotting |
| | | Canvassing |

Source: Keeter, S., Zukin, C., Andolina, M., & Jenkins, M. (2002).

The problem with the above list of indicators is that it includes activities such as voting and participating in a protest which are more aligned with the broader "catchword" type of definitions of civic engagement. This list, therefore, does not contribute to the objective of narrowing a broad definition to a specific set of observable and measurable variables. More importantly, the list conflicts with the typology defined by Ekman and Amnå, who, as described in Table 1, divides each of these activities as different kinds of -latent and manifest- political participation. Therefore, and

[60] Ibid.

[61] Keeter, S., Zukin, C., Andolina, M., & Jenkins, M. (2002). The civic and political health of the nation: A generational portrait. College Park, MD: Center for Information and Research on Civic Learning and Engagement (CIRCLE), School of Public Policy, University of Maryland.

in an effort to have consistency throughout the study, the typology established by Ekman et al. will be used for all three chapters. They propose the following list of activities for civic engagement: a) Individual forms: "activities based on personal interest and attention to politics and issues"; b) Collective forms: "voluntary work to improve conditions in the local community, for charity, or to help others (outside the own family and circle of friends)"[62].

In order to analyze these two dimensions using the AmericasBarometer, the following survey questions seem useful:

a) (np1) Have you attended a town meeting, a city council meeting, or another meeting in the past 12 months?

b) (cp8) Please tell me if you attend meetings of a community improvement committee or association at least once a week, once or twice a month, once or twice a year, or never.

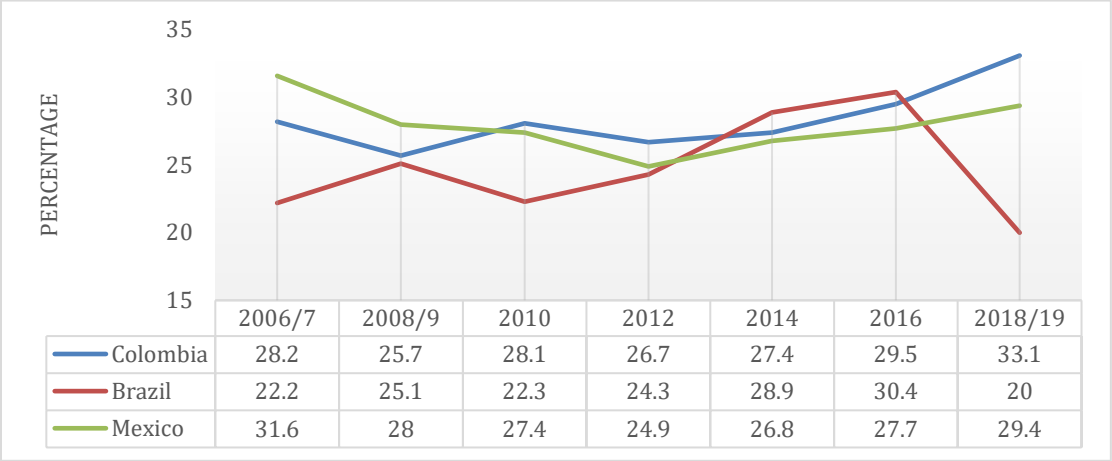
The first question (np1), which relates to an individuals' participation in local governmental meetings), is not included in the questionnaire for Brazil. This poses a challenge because it does not allow to run a full comparative analysis of the three selected countries. This leaves only one alternative to measure civic engagement. Therefore, this chapter aims to explore whether frequent exposure to political content through Facebook and WhatsApp is positively associated with civic engagement, by analyzing AmericasBarometer's variable cp8, which relates to an individuals' participation in meetings of a community improvement committee or association.

According to the 2016/17 Americas Barometer, approximately 30% of Latin Americans over the age of 18 have attended a meeting of a community improvement committee or

[62] Ekman, Joakim and Erik Amnå. 2012. "Political Participation and Civic Engagement: Towards a New Typology." Human Affairs 22 (3): 283-300. doi:10.2478/s13374-012-0024-1. http://www.degruyter.com/doi/10.2478/s13374-012-0024-1.

association[63] (civic engagement). When looking at the 2018/19 data of the three countries under analysis, Colombia and Mexico are close to the regional average at 33.1% and 29.4%, respectively. Also, both countries show an increase in civic participation levels since 2012. Brazil, on the other hand, is on the lower end at 20%, with a notorious decline of over 10 percentage points between 2016 and 2018/9. This change is even greater than the 6.5% decrease registered[64] in a country with more complex challenges and democratic instability such as Haiti.

**Figure 1. Percentage of individuals who attended meetings of a community improvement committee or association in Brazil, Colombia, and Mexico by year.**



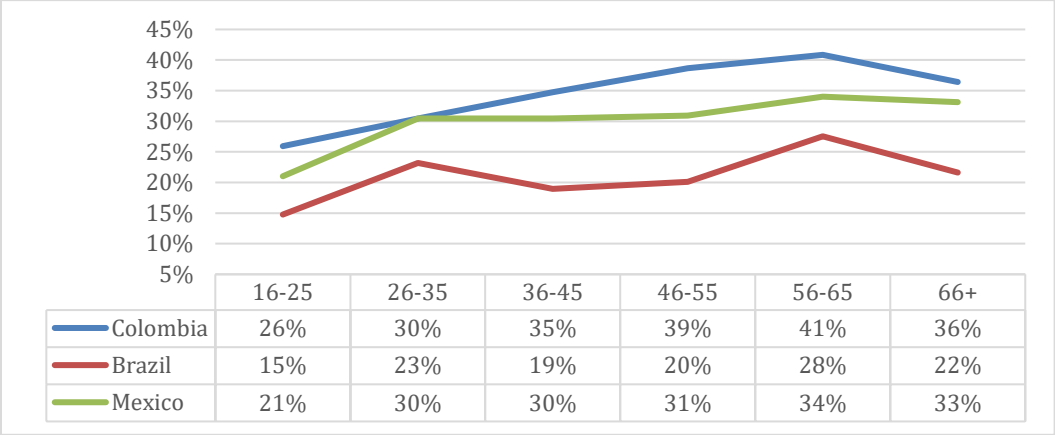

| | 2006/7 | 2008/9 | 2010 | 2012 | 2014 | 2016 | 2018/19 |
|---|---|---|---|---|---|---|---|
| Colombia | 28.2 | 25.7 | 28.1 | 26.7 | 27.4 | 29.5 | 33.1 |
| Brazil | 22.2 | 25.1 | 22.3 | 24.3 | 28.9 | 30.4 | 20 |
| Mexico | 31.6 | 28 | 27.4 | 24.9 | 26.8 | 27.7 | 29.4 |

Source: Own elaboration based on data provided by the Americas Barometer – Latin American Public Opinion Project (LAPOP), www.LapopSurveys.org.

In terms of age, LAPOP data reflects that the three countries show a similar trend: civic engagement increases as people age (age brackets are the same as LAPOP's), as illustrated in Figure 2 below.

[63] http://infolapop.ccp.ucr.ac.cr/index.php/grafico-participacion-reuniones-comunidad-latam.html
[64] Between 2014 and 2016.

Figure 2. Percentage of individuals who attended meetings of a community improvement committee or association in Brazil, Colombia, and Mexico by age

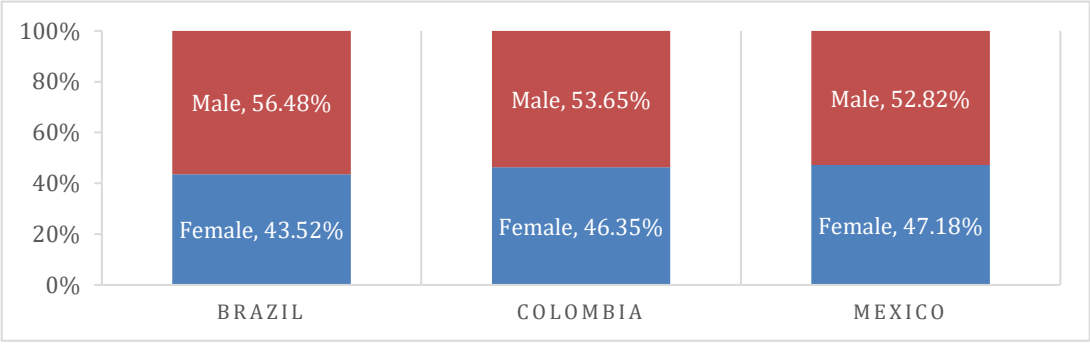



| | 16-25 | 26-35 | 36-45 | 46-55 | 56-65 | 66+ |
|---|---|---|---|---|---|---|
| Colombia | 26% | 30% | 35% | 39% | 41% | 36% |
| Brazil | 15% | 23% | 19% | 20% | 28% | 22% |
| Mexico | 21% | 30% | 30% | 31% | 34% | 33% |

Source: Own elaboration based on data provided by the Americas Barometer – Latin American Public Opinion Project (LAPOP), www.LapopSurveys.org.

When looking at gender, men in all three countries show higher civic participation levels than women. This could have to do with the traditional role assigned to women in the household as caregivers, a situation that is still very strong in Latin America. This information seems relevant as females behave differently. Hence, this variable has been added as a control group in the models.

Figure 3. Individuals who attended meetings of a community improvement committee or association once a year or more in Brazil, Colombia, and Mexico by sex




Source: Own elaboration based on data provided by the Americas Barometer – Latin American Public Opinion Project (LAPOP), www.LapopSurveys.org.

Lastly, data reveals that individuals who reside in rural areas are significantly more engaged in the three countries than those from urban areas. In order to reflect this reality, all models include the residential area as a control variable.

**Table 8. Individuals who attended meetings of a community improvement committee or association once a year or more in Brazil, Colombia, and Mexico by residence area**

| Country | Individuals from urban areas who are civically engaged | Individuals from rural areas who are civically engaged |
|---|---|---|
| Brazil | 17.46% | 36.76% |
| Colombia | 26.45% | 58.23% |
| Mexico | 27.87% | 34.70% |

Source: Own elaboration based on data provided by the Americas Barometer – Latin American Public Opinion Project (LAPOP), www.LapopSurveys.org.

*Results*

The logistic regression models presented in Table 9 show a positive relationship between frequent exposure to political information via WhatsApp and Facebook and Civic Engagement in Brazil, Mexico, and Colombia. In other words, individuals -from the countries under study- who frequently view political information through WhatsApp and Facebook have higher chances of participating in meetings of a community improvement committee or association. Except for Facebook users in Mexico, all results are statistically significant, which means that we are certain that individuals who consume more political information through these platforms behave differently or are more civically engaged than those who never view political information via the SNS under study.

Table 9 - Use of Facebook and WhatsApp and Civic Engagement in three Latin American Countries. Logistic regression models, based on LAPOP Data.

| | Facebook | | | WhatsApp | | |
|---|---|---|---|---|---|---|
| | Brazil | Colombia | Mexico | Brazil | Colombia | Mexico |
| | Estimate (Std. error) | Estimate (Std. error) | Estimate (Std. error) | Estimate (Std. error) | Estimate (Std. error) | Estimate (Std. error) |
| Non-Users | 0.5649 (0.2891) | 0.4339* (0.2006) | 0.4090 (0.2474) | 0.2447 (0.2249) | 0.0807 (0.1582) | 0.4272** (0.1594) |
| Lo-Frequency (dummy) | 0.4575 (0.3449) | 0.6859** (0.2342) | 0.2856 (0.3210) | 0.0429 (0.2697) | 0.2484 (0.1946) | 0.4750* (0.2171) |
| Hi-Frequency (dummy) | 0.7049* (0.2766) | 0.8135*** (0.1925) | 0.2891 (0.2518) | 0.5496** (0.1913) | 0.5691*** (0.1598) | 0.7543*** (0.1781) |
| Years of Education | 0.0816*** (0.0208) | 0.0075 (0.0163) | 0.0383* (0.0156) | 0.0751*** (0.0210) | 0.0104 (0.0163) | 0.0307* (0.0157) |
| Age | 0.0139** (0.0050) | 0.0164*** (0.0044) | 0.0100* (0.0041) | 0.0137** (0.0048) | 0.0147*** (0.0041) | 0.0095* (0.0040) |
| Female (dummy) | -0.3446* (0.1373) | -0.1481 (0.1139) | -0.1475 (0.1147) | -0.2997* (0.1380) | -0.1690 (0.1133) | -0.1311 (0.1153) |
| Urban area (dummy) | -1.0566*** (0.1795) | -1.5612*** (0.1529) | -0.2961* (0.1409) | -1.0317*** (0.1798) | -1.5511*** (0.1515) | -0.3115* (0.1406) |
| Attentiveness to the news | -0.0084 (0.0764) | 0.1578* (0.0627) | 0.1014 (0.0604) | -0.0213 (0.0760) | 0.1567* (0.0622) | 0.0804 (0.0608) |
| Party identification (dummy) | 0.4418** (0.1515) | 0.2654* (0.1285) | 0.1945 (0.1443) | 0.4140** (0.1523) | 0.2629* (0.1278) | 0.1518 (0.1447) |
| Internet at home (dummy) | -0.6350*** (0.1640) | 0.0182 (0.1354) | -0.2820* (0.1264) | -0.6673*** (0.1693) | -0.0053 (0.1353) | -0.2915* (0.1287) |
| Constant | -1.8181*** (0.4886) | -1.4748*** (0.3650) | -2.0284*** (0.4116) | -1.4403** (0.4438) | -1.0550** (0.3410) | -1.8637*** (0.3638) |
| Log-likelihood | -681.0499 | -935.7198 | -905.4136 | -682.8165 | -943.7134 | -898.6924 |
| Pseudo R-squared | 0.0617 | 0.0870 | 0.0190 | 0.0614 | 0.0836 | 0.0280 |
| AIC | 1,384.1000 | 1,893.4400 | 1,832.8270 | 1,387.6330 | 1,909.4270 | 1,819.3850 |
| BIC | 1442.0886 | 1952.6839 | 1891.3748 | 1445.6752 | 1968.7188 | 1877.9469 |
| Observations | 1,439 | 1,613 | 1,514 | 1,446 | 1,620 | 1,516 |

* p<0.05; ** p<0.01; *** p<0.001

The model controls for other factors that are positively associated with civic engagement: higher education and identification with a political party. On the other hand, variables that decrease civic participation include living in urban areas and being a woman. The latter is consistent with the data in Figure 3, which shows that women are less civically engaged in the three countries under analysis. Moreover, the data also shows that individuals in rural areas are much more civically engaged, as described in Table 8. The results of the models are, therefore, consistent with political behaviors reported by LAPOP.

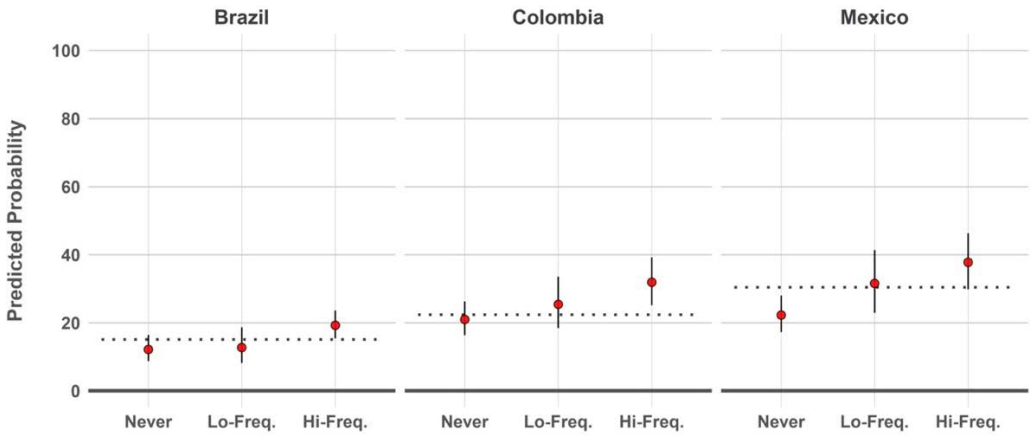
Table 10 provides the predicted probability of being civically engaged for an individual of the mean age of the sample population in each country, according to their intensity of SNS use (for political purposes).

Table 10. Civic Participation Predictions for mean ages in Brazil, Colombia and Mexico

| country | network | user_group | age | mean | lo_90 | up_90 |
|---|---|---|---|---|---|---|
| Brazil | Facebook | No User | 37 | 16.1665 | 12.5770 | 20.2362 |
| Brazil | Facebook | Never | 37 | 10.0602 | 6.5079 | 14.5029 |
| Brazil | Facebook | Lo-Freq. | 37 | 14.8986 | 10.2358 | 20.4751 |
| Brazil | Facebook | Hi-Freq. | 37 | 18.1097 | 14.8530 | 21.6709 |
| Colombia | Facebook | No User | 37 | 21.9988 | 17.6188 | 26.7826 |
| Colombia | Facebook | Never | 37 | 15.5079 | 11.5587 | 20.0127 |
| Colombia | Facebook | Lo-Freq. | 37 | 26.6691 | 20.4560 | 33.5367 |
| Colombia | Facebook | Hi-Freq. | 37 | 29.1268 | 24.1128 | 34.4918 |
| Mexico | Facebook | No User | 39 | 30.6124 | 26.1608 | 35.3146 |
| Mexico | Facebook | Never | 39 | 22.8928 | 16.1543 | 30.5837 |
| Mexico | Facebook | Lo-Freq. | 39 | 28.2344 | 20.4294 | 36.9182 |
| Mexico | Facebook | Hi-Freq. | 39 | 28.1454 | 23.2322 | 33.4461 |
| Brazil | WhatsApp | No User | 37 | 15.0927 | 11.0578 | 19.8015 |
| Brazil | WhatsApp | Never | 37 | 12.1991 | 9.1912 | 15.6736 |
| Brazil | WhatsApp | Lo-Freq. | 37 | 12.7556 | 8.8155 | 17.5561 |
| Brazil | WhatsApp | Hi-Freq. | 37 | 19.2588 | 15.9754 | 22.8279 |
| Colombia | WhatsApp | No User | 37 | 22.3772 | 17.9991 | 27.1514 |
| Colombia | WhatsApp | Never | 37 | 20.9910 | 16.9709 | 25.3318 |
| Colombia | WhatsApp | Lo-Freq. | 37 | 25.4564 | 19.4383 | 32.0883 |
| Colombia | WhatsApp | Hi-Freq. | 37 | 31.8878 | 26.1026 | 38.0498 |
| Mexico | WhatsApp | No User | 39 | 30.4568 | 25.9860 | 35.1626 |
| Mexico | WhatsApp | Never | 39 | 22.3047 | 18.0158 | 26.9990 |
| Mexico | WhatsApp | Lo-Freq. | 39 | 31.6444 | 24.2393 | 39.6284 |
| Mexico | WhatsApp | Hi-Freq. | 39 | 37.8445 | 31.0705 | 44.8971 |

The predictions reveal that individuals who report frequently using WhatsApp to view/exchange political information are more likely to participate in civic activities than both a) non-users (represented by the dotted line in Figure 4 below), and b) users who said to never use this messaging platform to access political information. In line with the models presented in Table 8, the difference between users who never consult political information via WhatsApp and those who do it frequently is statistically significant in all three countries.

Figure 4. Predicted Civic Engagement among WhatsApp Users, by Country




More specifically, country results reveal that high political information consumption via WhatsApp increases the probability of being civically engaged by 4.12 percentage points in Colombia, 7.06 percentage points in Brazil, and 15.54 percentage points in Mexico, as described in Table 11.

Table 11. Predicted probability of attending a meeting of a community improvement committee or association based on Intensity of Use of WhatsApp for Political Information purposes – Individuals of mean ages from Brazil, Colombia, and Mexico (α = 0.10)

| Country and Age of Individual | Probability of attending a meeting of a community improvement committee or association based on Intensity of Use of WhatsApp | | Difference and Direction |
|---|---|---|---|
| | Never | High | |
| Brazil – Age 37 | 12.19% | 19.25% | 7.06 ↑ |
| Colombia – Age 37 | 20.99% | 25.11% | 4.12 ↑ |
| Mexico – Age 39 | 22.30% | 37.84% | 15.54 ↑ |

Furthermore, Figure 4 illustrates that being a WhatsApp user but not exchanging political information through the platform does not increase the probabilities of civic participation vs. non-users. This is aligned with previous academic research, such as Bode, who found that merely using social media is not a predictor of increased participation. It is the intensity and type of use what influences political behaviors.

When looking at Facebook, results are generally similar (positive) to those from the analysis of WhatsApp use, except for Mexico, where this platform's use appears to have a positive effect in civic engagement (5.25 percentage points increment), but it is not statistically significant. Furthermore, Mexico is the only country in which individuals who frequently view political information on Facebook have less probability of participating in a meeting of a community improvement committee or association than non-users, suggesting that this platform's intense use is not a strong predictor for civic engagement (see Figure 5).

Figure 5. Predicted Civic Engagement among Facebook Users, by Country

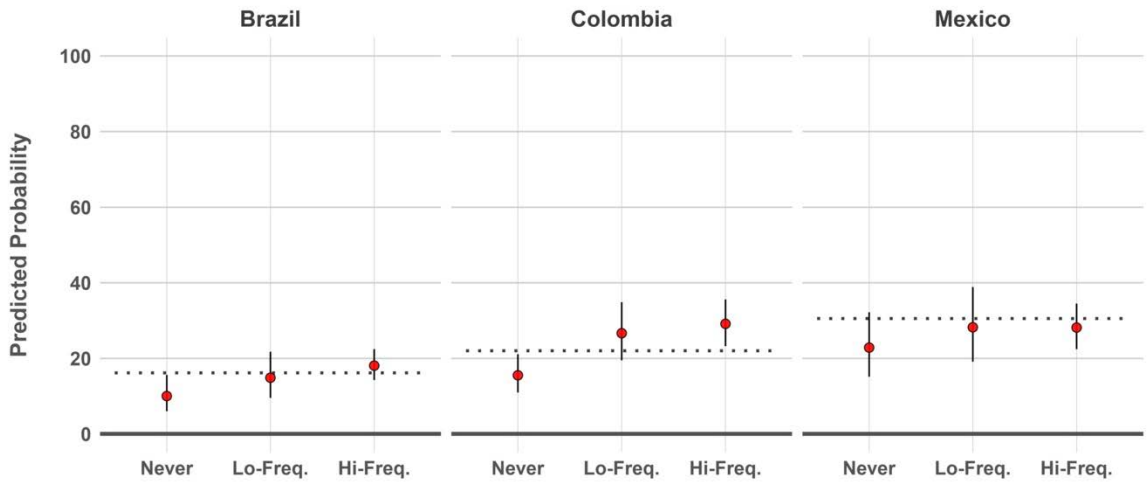



Table 12. Predicted probability of attending a meeting of a community improvement committee or association based on Intensity of Use of Facebook for Political Information purposes – Individuals of mean age from Brazil, Colombia, and Mexico (α = 0.10)

| Country and Age of Individual | Probability of attending a meeting of a community improvement committee or association based on Intensity of Use of Facebook | | Difference and Direction |
|---|---|---|---|
| | Never | High | |
| Brazil – Age 37 | 10.06% | 18.10% | 8.04 ↑ |
| Colombia – Age 37 | 15.50% | 29.12% | 13.62 ↑ |
| Mexico – Age 39 | 22.89% | 28.14% | 5.25↑ |

When looking at both platforms' predictions, it is possible to affirm that individuals who frequently consume political information via Facebook and WhatsApp are more likely to be civically engaged. While in Brazil, the predictions reveal that the increase in civic participation is somewhat similar for both Facebook (8.04 percentage points) and WhatsApp (7.06 percentage points) users, this is not the same in the other countries. In Colombia, intense Facebook use is positively associated with civic participation too. The difference between predicted probability of civic engagement between the 'never' group and the 'high-intensity' group is 13.62 percentage points or 87.87%. In Mexico, the predicted probability of individuals who frequently use the

platform for political purposes is 15.54 percentage points more than those who never use SNS this way. This is an increase of 69.68%.

LAPOP data does not provide information regarding the size of the network of each survey respondent. Therefore, it is not possible to make an association between the size of an individual's network and the rate of their participation to test the theory that larger networks provide more chances of being exposed to mobilizing information. Nonetheless, the findings are consistent with the theory (as explained in the literature review) that argues that those who are more knowledgeable about current issues are more likely to be engaged. An individual's political behavior in the virtual world can be translated into the offline sphere. It is also possible that civic activities are 'contagious.' Seeing other network members participating in community events influences one's involvement[65].

Civic engagement is an important dimension of political participation that is often overlooked. A 2012 study by Graff, Orrell and Rigl found that, in Latin America, "working to solve [community] problems, participating in community improvement meetings and attending municipal meetings are all positive predictors of working for a political campaign"[66]. This means that one behavior that might not seem politically related can lead to actual involvement with a political party, which increases the chances of an individual to vote, as revealed by empirical data. Nonetheless, civic participation is not given the importance it deserves. Many Latin American

[65] Vitak, J., Zube, P., Smock, A., Carr, C. T., Ellison, N., & Lampe, C. (2011). It's complicated: Facebook users' political participation in the 2008 election. Cyberpsychology, Behavior, and Social Networking, 14(3), 107–114. doi:10.1089/cyber.2009.0226

[66] Graff, E., Orrell, M. and Rigl, A. (2012) Riches Don't Explain Campaign Participation in the Americas, but Community Involvement Does. Latin America Public Opinion Project. Co-edited by Mitchell A. Seligson, Amy Erica Smith, and Elizabeth J. Zechmeister. Available at: https://www.vanderbilt.edu/lapop/insights/IO882en.pdf

countries do not incorporate civic education in their mandatory curricula[67]. Consequently, revealing that social media use (to access political information) can positively affect civic engagement might provide policymakers in the region with useful information, contributing to their efforts to construct stronger, more participative democracies.

[67] Cox, C., Bascopé, M., Castillo, J.C., Miranda, D., Bonhomme, M. (2014). Educación ciudadana en América Latina: Prioridades de los currículos escolares. UNESCO Oficina Internacional de Educación. Ginebra, Suiza. Available at: http://www.ibe.unesco.org/sites/default/files/resources/wpci-14-education_ciudadana_spa.pdf

# Chapter 4. Relationship Between Social Media and Electoral Participation

Running for office, being a public servant, and voting are ways a person can participate and contribute in politics. Voting provides a citizen with the right to choose, the freedom to dissent, the power to remove someone from office, all by giving us the possibility to show up and express a preference. While voting is a universal concept, the existence of free and fair elections and equal voting rights for all should not be taken for granted, especially not in Latin America, given its history of authoritarian regimes. Looking only at the countries under analysis, we can see that all three had a period of authoritarian regime. Brazil had a 29-year military dictatorship between 1964 and 1985[68]. Similarly, Colombia was ruled by a military regime between 1953 to 1957 and is home to one of the longest internal conflicts in the region (which started in 1964) and is still putting a peace accord into practice. Finally, Mexico was governed by the same political party between 1929 to 2000, which earned the country its name of "the perfect dictatorship", as Nobel Prize Mario Vargas Llosa described, "an authoritarian regime that camouflaged its permanence in power with the superficial practice of democracy"[69].

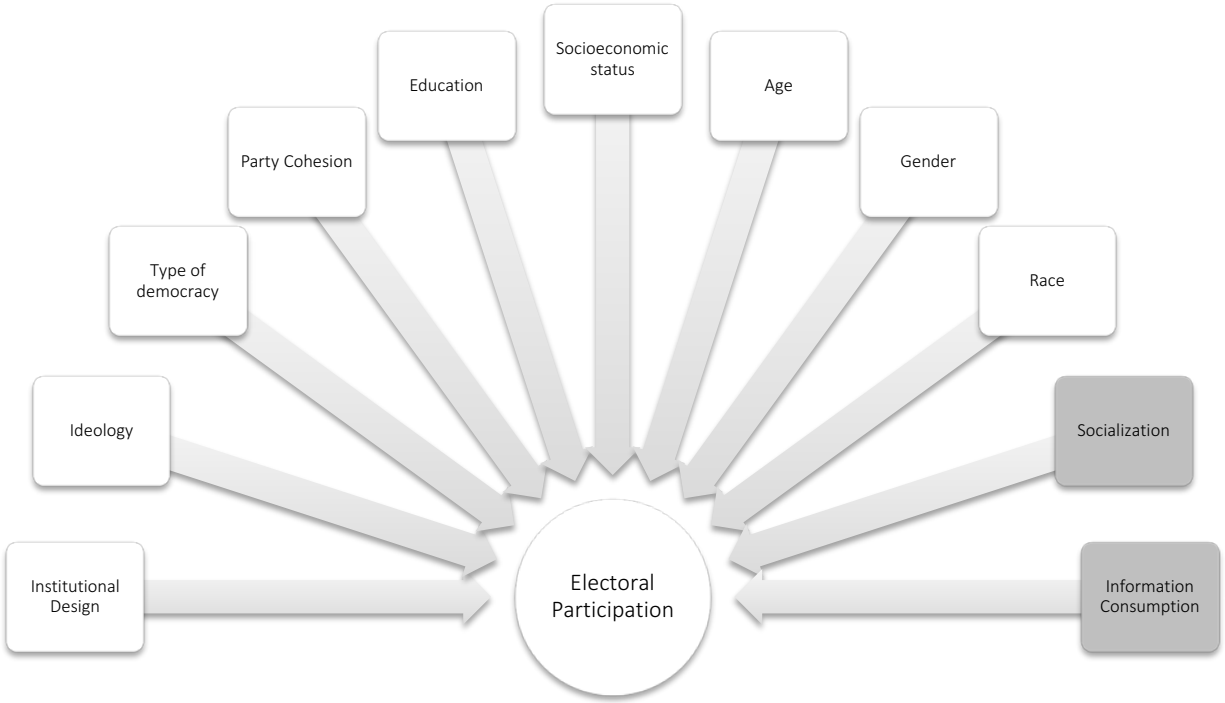
Voting, therefore, can take place as a result of different motivations and respond to diverse historical realities. Electoral participation can probably be regarded as the most studied form of political expression worldwide by both the academic world and politicians looking to mobilize

[68] Chirio, Maud. Politics in Uniform: Military Officers and Dictatorship in Brazil, 1960-80. Pittsburgh: University of Pittsburgh Press, 2018. muse.jhu.edu/book/59614.
[69] Vargas Llosa, Mario. 1990. "México es la dictadura perfecta". Retrieved September 21, 2020 from https://elpais.com/diario/1990/09/01/cultura/652140001_850215.html

voters. In that regard, Navia and Ulriksen compile an extensive set of variables that impact electoral participation, as shown in Figure 6 below. While some have to do with demographics (age, gender, race, education, socioeconomic status), others are more related to structural conditions of the country, such as the type of democracy (a stable democracy means more participation), the electoral system (proportional representation systems drive more participation), type and competitiveness of elections (presidential elections are known to have higher turnout), compulsory vs. voluntary voting, among others. Navia and Ulriksen believe that socialization and interaction with others who think alike reaffirm political predispositions. Moreover, they believe citizens are rational individuals who search for information when motivated to do so[70]. The two latter aspects go perfectly in line with the existing theories under evaluation: social capital and mobilization.

[70] Navia, P. y Ulriksen, C. (2017). Tuiteo, luego voto. El efecto del consumo de medios de comunicación y uso de redes sociales en la participación electoral en Chile en 2009 y 2013. Cuadernos.info, (40), 71-88. https://doi.org/10.7764/cdi.40.1049

Figure 6. Drivers of Electoral Participation




Source: Self elaboration with information from Navia, P. y Ulriksen, C. (2017). Tuiteo, luego voto. El efecto del consumo de medios de comunicación y uso de redes sociales en la participación electoral en Chile en 2009 y 2013. Cuadernos.info, (40), 71-88. https://doi.org/10.7764/cdi.40.1049

On the opposite side, a factor that typically hinders electoral participation is a lack of trust in the electoral process. LAPOP data reveals that in 2016/17, Brazil (23.4%), Colombia (24%), and Mexico (26.2%) were among the countries with the lowest level of trust of 18 countries in Latin America. The only country with a lower percentage of citizens who trusted in their elections was Haiti (18.5%)[71]. Nonetheless, this situation changed for 2018/19, when all three countries recorded increased levels of trust in elections[72]. In Mexico, LAPOP reports a positive difference of

[71] Romero, Vidal, and Pablo Paras. "The Political Culture of Democracy in Mexico and in the Americas, 2016/17: A Comparative Study of Democracy and Governance." Latin America Public Opinion Project. Edited by Elizabeth J. Zechmeister and Georgina Pizzolitto . February 2018. https://www.vanderbilt.edu/lapop/mexico/AB2016-17_Mexico_Country_Report_English_V1_05.15.18_W_10.25.18.pdf.

[72] All differences were statistically significant at p<0.05.

15.2 percentage points between 2016/17 and 2018/19. Similarly, Brazil registered a 10.3 increase, and Colombia a 5.5 increase in trust[73].

The purpose of this chapter, however, is not to analyze the drivers of electoral participation individually. These variables are provided to reveal the numerous factors that impact this particular political behavior and to illustrate that explaining electoral participation is not simple, nor a perfect science. In that context, the Americas Barometer has asked individuals about their voting behaviors for many years now, and 2018/19 was no different. The survey included the following question (vb2): Did you vote in the last presidential elections?. Respondents had two main options: Yes and No. Out of a sample of 4,741 individuals (adding up the three countries under study), only five said they did not know or did not respond to the question.

This chapter aims to explore whether there is a positive relationship between frequent exposure to political content through Facebook and WhatsApp and voting, by analyzing The Americas Barometer's variable vb2, which relates to an individuals' electoral participation. As in the other chapters, the models control for variables that are known drivers of electoral participation, which, as reviewed earlier, include education, age, gender, and party identification.

The year 2018 was a busy electoral year for Latin America. Citizens from eight countries went to the polls. The three biggest countries in Latin America: Brazil, Colombia, and Mexico, as well as Costa Rica, Venezuela, and Paraguay elected new presidents. El Salvador voted for their legislators, and Ecuador had an important referendum.

[73] Latin America Public Opinion Project. 2019. Appendix Material for 2018 - 19 AmericasBarometer Report - Comparative Chapters. Available at: https://www.vanderbilt.edu/lapop/ab2018/Appendix_Material_for_2018-19_AmericasBarometer_Report-Comparative_Chapters_10.13.19.pdf

Turnout was among the criteria used in selecting the countries for this study, as it varies greatly from country to country due to different political and/or structural issues, including having compulsory vs. voluntary voting. Of the above-listed 2018 presidential elections, Brazil, Costa Rica, Mexico, and Paraguay all have some legal regulation that makes voting mandatory; nonetheless, Brazil is the only country that enforces it. In Brazil, voting is required for all literate individuals who are between 18 and 69 years[74], and those who fail to show up on election day must pay a fee or otherwise might "risk restrictions on receiving certain government salaries, loans, ID cards, and more.[75]"

As illustrated in Figure 7, the lowest turnout officially registered in the 2018 presidential elections was 54.22% in Colombia, while the highest was 79.68% in Brazil. It is important to highlight that turnout in Venezuela was officially reported at 67.84% by the country's electoral authority[76]. Nonetheless, many sources argue this was an inflated figure that has to be viewed in a context of a severely questioned election[77]. Going back to Brazil's case, the literature consulted explains its high turnout: effective enforcement of "comp ulsory voting increases turnout"[78]. This is relevant because the LAPOP data does not provide information regarding motivation for voting. In other words, it is impossible to know if individuals are voting because they are truly interested

[74] Power, Timothy J. (2009). Compulsory for Whom? Mandatory Voting and Electoral Participation in Brazil, 1986-2006, in: Journal of Politics in Latin America, 1, 1, 97-122

[75] Sonneland, Holly K. "Chart: A Deep Dive into Voter Turnout in Latin America". Americas Society / Council of the Americas. June 19, 2019. Accessed September 24, 2020 via: https://www.as-coa.org/articles/chart-deep-dive-voter-turnout-latin-america

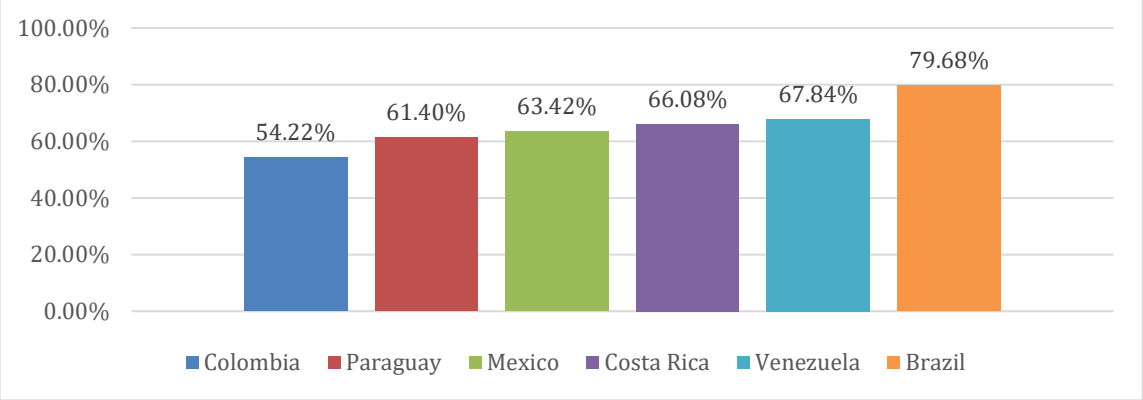
[76] Results can be accessed via: http://www4.cne.gob.ve/ResultadosElecciones2018/

[77] Newman, William and Casey, Nicholas. "Venezuela Election Won by Maduro Amid Widespread Disillusionment." The New York Times, May, 10, 2018. Accessed September 24, 2020 via https://www.nytimes.com/2018/05/20/world/americas/venezuela-election.html?auth=-google1tap

[78] Blais, André (2006), What Affects Voter Turnout?, in: Annual Review of Political Science, 9, 111-125.

or they are doing so to avoid paying the fine or evade the paperwork required to justify an absence on election day.

Figure 7. Electoral Participation in 2018 Presidential Elections in Latin America




Source: self-elaboration with data from Sonneland, Holly K. "Chart: A Deep Dive into Voter Turnout in Latin America". Americas Society / Council of the Americas. June 19, 2019. Accessed September 24, 2020 via: https://www.as-coa.org/articles/chart-deep-dive-voter-turnout-latin-america; National Electoral Council of Venezuela. "Divulgación de Resultados Electorales 2018". Last updated May 28, 2018. Accessed September 24, 2020 via http://www4.cne.gob.ve/ResultadosElecciones2018/: Registraduría Nacional del Estado Civil. Revista Nuestra Huella. December, 2018. Accessed September 28, 2020 via https://www.registraduria.gov.co/IMG/pdf/revista/2018/Revista_diciembre_2018.pdf ; Tribunal Superior Eleitoral do Brasil. Estadisticas Eleitorais. Last updated March 26, 2019. Accessed September 28, 2020 via http://www.tse.jus.br/eleicoes/estatisticas/estatisticas-eleitorais and Instituto Nacional Electoral de México. Memoria Gráfica Proceso Electoral 2017-18. Accessed September 28 via https://www.ine.mx/wp-content/uploads/2019/04/MemoriaGraficaPE2017-2018.pdf

As described earlier, among the shortcomings political scientists face when working with surveys is that responses are not always an accurate reflection of an individual's behaviors. While it might be easier to assume that respondents simply lie, it is also a possibility that an individual might truly get confused or forget whether he/she voted, particularly in cases where the election was held long before the survey is conducted. Surveys also have a risk of sampling error, which, in this case, LAPOP reports at 2.5% for all the three countries under study. Furthermore, when studying electoral participation, the literature reveals that survey data usually reflects higher turnout rates than the official government reports[79]. This challenge is nothing new; Rosenstone

[79] Rosenstone, S., & Wolfinger, R. (1978). The Effect of Registration Laws on Voter Turnout. The American Political Science Review, 72(1), 22-45. doi:10.2307/1953597 and Matthew K Berent, Jon A Krosnick, Arthur Lupia, Measuring

and Wolfinger stated back in 1978 that "since 1948 reported turnout in sample surveys has ranged between 5 percent and 17 percent higher than the aggregate estimates" [80].

When comparing the official turnout data (as reported by electoral authorities in each country) against the LAPOP survey responses, there are significant differences in Colombia and Mexico. Table 13 reveals that survey data has a difference of over 12 and 16 percentage points higher, respectively, which is a possible indication that many citizens who did not vote reported doing so. A strategy commonly used in the United States to improve survey data accuracy is matching the individual's response to official and commercial voting profiles/records. Nonetheless, this is not possible as survey data from LAPOP is anonymous, and there are no public voting records (at the individual level) in the countries under study. On the contrary, voting records would be considered confidential information and even protected by law in some cases.

Table 13. Difference between official turnout and self-reported electoral participation

| Country | Official Turnout | LAPOP Data | Difference and Direction |
|---|---|---|---|
| Brazil (1st round) | 79.68% | 75.98% | 3.70 ↓ |
| Colombia (1st round) | 54.22% | 66.93% | 12.71 ↑ |
| Mexico | 63.42% | 79.75% | 16.33 ↑ |

Source: Own elaboration based on the Americas Barometer data – Latin American Public Opinion Project (LAPOP). Statistical Compendium of the 2018/19 Regional Reports, available via https://www.vanderbilt.edu/lapop/ab2018/Statistical_Compendium_2018-19_W_10.22.19.pdf

Voter Registration and Turnout in Surveys: Do Official Government Records Yield More Accurate Assessments?, Public Opinion Quarterly, Volume 80, Issue 3, Fall 2016, Pages 597–621, https://doi.org/10.1093/poq/nfw021

[80]Rosenstone, S., & Wolfinger, R. (1978). The Effect of Registration Laws on Voter Turnout. The American Political Science Review, 72(1), 22-45. doi:10.2307/1953597

As explained earlier, this difference might have to do with an individual's recollection of the events. Table 14 reveals that some individuals were polled up to eight months after the election date (Mexico). Moreover, the difference might also have to do with the number of elections in Colombia and Mexico. In the first case, Colombians were called to the polls four times in a single year. In Mexico, while elections were all on the same date, citizens received up to five different ballots[81] and also were required to go to two different polling stations[82] (one for federal elections and one for local elections). Both cases are different, but the high number of ballots cast by an individual in a single year could be sufficient reason to confuse a survey respondent. While lying is still a possibility, it is also possible that a survey respondent who did not vote for president had, in fact, cast a ballot in 2018 for a different election.

Table 14. 2018 Elections' Dates and Survey Fieldwork Dates

| Country | 2018 Elections | LAPOP Fieldwork dates |
|---|---|---|
| Brazil | General Election: October 7, 2018<br>Presidential Runoff: October 28, 2018 | January 29 – March 3rd, 2019 |
| Colombia | Parliamentary: March 11, 2018<br>Presidential: May 27, 2018<br>Presidential Runoff: June 17, 2018<br>Popular Consultation: August 26, 2018 | September 10 - December 27, 2018 |
| Mexico | Federal and Local Elections: July 1, 2018 | January 10 - March 27, 2019 |

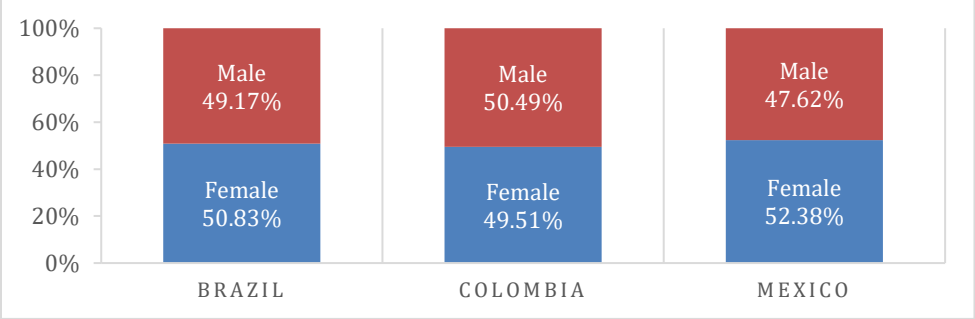
Source: Own elaboration based on data provided by the Americas Barometer – Latin American Public Opinion Project (LAPOP), www.LapopSurveys.org and the Organization of American States' Electoral Observation Missions Database, https://www.oas.org/EOMDatabase/

[81] President/vice president, senators, deputies, governors, and local authorities.
[82] While they were next to each other, in practice, a citizen had to approach two different stations with two sets of poll workers. One polling station would only offer ballots for president, senators, and deputies and the other for governor and local authorities.

LAPOP continues to be among the best and most reliable public opinion survey in Latin America. Therefore, while it is important to recognize that the findings of the statistical analysis in this chapter have to be interpreted integrating this additional caveat, its results still reveal useful information regarding the relationship between social media use and electoral participation.

LAPOP data reveals that women have slightly higher turnout rates in Brazil (50.83%) and even more in Mexico (52.38%). While official data in Colombia reports that women voted more than men in the 2018 election, LAPOP data shows a difference of almost one percentual point, being men the group who voted more. This difference is within the margin of error. Therefore, in general terms, LAPOP data matches official turnout rates by sex.

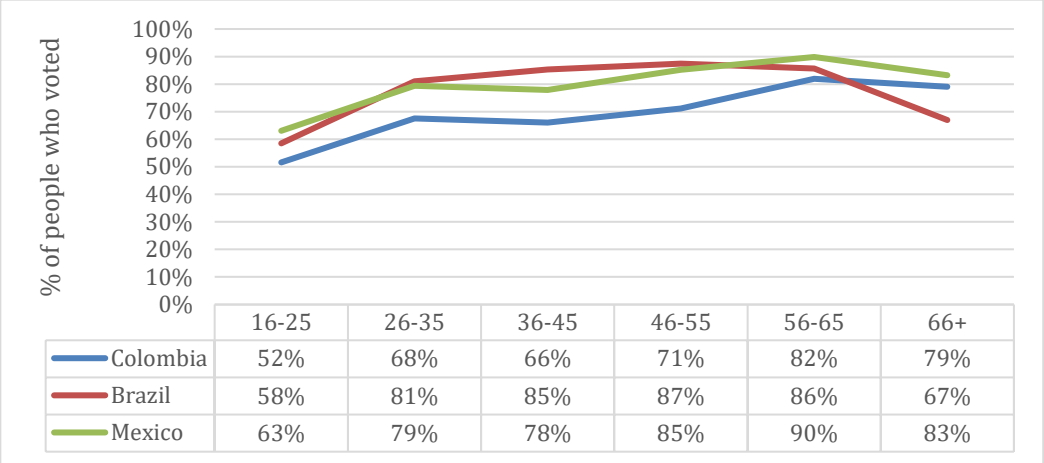
**Figure 8. Individuals who voted in the 2018 Presidential Elections in Brazil, Colombia and Mexico by sex**




Source: Own elaboration based on data provided by the Americas Barometer – Latin American Public Opinion Project (LAPOP), www.LapopSurveys.org

None of the electoral management bodies of the three countries under study have published turnout data disaggregated by age. LAPOP data is consistent with the literature consulted, revealing that age is a strong predictor for turnout. As people age, they are more likely to vote, as illustrated in Figure 9.

Figure 9. Individuals who voted in the 2018 Presidential Elections in Brazil, Colombia, and Mexico by age




| | 16-25 | 26-35 | 36-45 | 46-55 | 56-65 | 66+ |
|---|---|---|---|---|---|---|
| Colombia | 52% | 68% | 66% | 71% | 82% | 79% |
| Brazil | 58% | 81% | 85% | 87% | 86% | 67% |
| Mexico | 63% | 79% | 78% | 85% | 90% | 83% |

Source: Own elaboration based on data provided by the Americas Barometer – Latin American Public Opinion Project (LAPOP), www.LapopSurveys.org

*Results*

The logistic regression models presented in Table 15 show a positive relationship between frequent exposure to political information via WhatsApp and Facebook and electoral participation in Brazil, Colombia, and Mexico. Nonetheless, it is important to highlight that only three out of six model results are statistically significant. When looking at the models for Facebook, Colombia is the only one that shows statistically significant results. WhatsApp models reveals statistically significant results for Colombia and Mexico. There are no statistically significant results in Brazil, which might have to do with the fact that voting is mandatory in this country and that the main driver for voting is avoiding the fines for not showing up. When looking at models by platform, it is evident that WhatsApp has a stronger effect on electoral participation. On the other hand, if we compare each country, the models reveal that SNS has a higher effect on electoral participation in Colombia.

Table 15 - Use of Facebook and WhatsApp and Electoral Participation in three Latin American Countries. Logistic regression models, based on LAPOP Data.

| | Facebook | | | WhatsApp | | |
|---|---|---|---|---|---|---|
| | Brazil | Colombia | Mexico | Brazil | Colombia | Mexico |
| | Estimate (Std. error) | Estimate (Std. error) | Estimate (Std. error) | Estimate (Std. error) | Estimate (Std. error) | Estimate (Std. error) |
| Non-Users | 0.4173 (0.2240) | -0.0373 (0.1818) | 0.2678 (0.2524) | 0.1527 (0.2014) | -0.1252 (0.1535) | 0.0805 (0.1726) |
| Lo-Frequency (dummy) | 0.1922 (0.2639) | 0.4143 (0.2137) | 0.0240 (0.3179) | -0.0938 (0.2129) | 0.4893* (0.1972) | 0.1140 (0.2346) |
| Hi-Frequency (dummy) | 0.3534 0.2076) | 0.5454** (0.1717) | 0.3611 (0.2525) | 0.2841 (0.1715) | 0.4823** (0.1663) | 0.8218*** (0.2363) |
| Years of Education | 0.1296*** (0.0224) | 0.0577*** (0.0172) | 0.1113*** (0.0203) | 0.1315*** (0.0226) | 0.0580*** (0.0173) | 0.1074*** (0.0202) |
| Age | 0.0377*** (0.0052) | 0.0383*** (0.0048) | 0.0466*** (0.0056) | 0.0376*** (0.0050) | 0.0359*** (0.0044) | 0.0465*** (0.0054) |
| Female (dummy) | 0.1548 (0.1313) | 0.0705 (0.1144) | 0.4135** (0.1360) | 0.1609 (0.1312) | 0.0472 (0.1143) | 0.4393** (0.1367) |
| Urban area (dummy) | -0.3316 (0.1980) | -1.0034*** (0.1648) | -0.2696 (0.1739) | -0.2815 (0.1943) | -0.9737*** (0.1643) | -0.2865 (0.1736) |
| Attentiveness to the news | 0.1383* (0.0678) | 0.2484*** (0.0566) | -0.0221 (0.0671) | 0.1186 (0.0677) | 0.2577*** (0.0566) | -0.0404 (0.0675) |
| Party identification (dummy) | 0.0713 (0.1588) | 0.8709*** (0.1483) | 0.6206** (0.2089) | 0.0467 (0.1589) | 0.8778*** (0.1487) | 0.5070* (0.2052) |
| Internet at home (dummy) | 0.4775** (0.1552) | 0.3184* (0.1320) | -0.1058 (0.1470) | 0.4104** (0.1583) | 0.3050* (0.1327) | -0.1283 (0.1488) |
| Constant | -2.3885*** (0.4487) | -2.2084*** (0.3539) | -1.6968*** (0.4653) | -2.1210*** (0.4275) | -2.0442*** (0.3422) | -1.4406*** (0.4325) |
| Log-likelihood | -723.4361 | -920.6674 | -693.3143 | -731.8045 | -920.3800 | -690.1846 |
| Pseudo R-squared | 0.0746 | 0.1038 | 0.0887 | 0.0730 | 0.1052 | 0.0917 |
| AIC | 1,468.8720 | 1,863.3350 | 1,408.6290 | 1,485.6090 | 1,862.7600 | 1,402.3690 |
| BIC | 1526.9219 | 1922.6200 | 1467.2269 | 1543.7421 | 1922.0791 | 1460.9820 |
| Observations | 1,447 | 1,619 | 1,521 | 1,458 | 1,624 | 1,523 |

* p<0.05; ** p<0.01; *** p<0.001

The models control for other factors that are positively associated with turnout, such as age and education, which are statistically significant in the three countries and both platforms. The results are consistent with the literature, which has found that older individuals and those with higher education are more likely to vote. Party identification is also a variable that is positively associated with high turnout, just as the models for Colombia and Mexico show, in which results are statistically significant. Furthermore, Mexico's models suggest that sex is a predictor for turnout in this country. In all three countries, the place of residence matters as well. Those in urban areas are less likely to vote, which is a particularly strong predictor in Colombia.

Table 16. Turnout Predictions for mean ages in Brazil, Colombia, and Mexico

| country | network | user group | age | mean | lo_90 | up_90 |
|---|---|---|---|---|---|---|
| Brazil | Facebook | No User | 37 | 82.4436 | 78.2110 | 86.2044 |
| Brazil | Facebook | Never | 37 | 75.5550 | 69.2364 | 81.2435 |
| Brazil | Facebook | Lo-Freq. | 37 | 78.8915 | 72.6103 | 84.3643 |
| Brazil | Facebook | Hi-Freq. | 37 | 81.5436 | 77.9391 | 84.8290 |
| Colombia | Facebook | No User | 37 | 52.8506 | 46.3073 | 59.2656 |
| Colombia | Facebook | Never | 37 | 53.7572 | 46.6776 | 60.7357 |
| Colombia | Facebook | Lo-Freq. | 37 | 63.6943 | 56.0628 | 70.9470 |
| Colombia | Facebook | Hi-Freq. | 37 | 66.6984 | 60.9663 | 72.1055 |
| Mexico | Facebook | No User | 39 | 80.5132 | 76.3746 | 84.2715 |
| Mexico | Facebook | Never | 39 | 75.7817 | 67.6323 | 82.8629 |
| Mexico | Facebook | Lo-Freq. | 39 | 76.2140 | 67.8634 | 83.4620 |
| Mexico | Facebook | Hi-Freq. | 39 | 81.8825 | 77.2974 | 85.9671 |
| Brazil | WhatsApp | No User | 37 | 80.9608 | 75.7105 | 85.6237 |
| Brazil | WhatsApp | Never | 37 | 78.5551 | 74.0433 | 82.6519 |
| Brazil | WhatsApp | Lo-Freq. | 37 | 76.8875 | 70.8358 | 82.2957 |
| Brazil | WhatsApp | Hi-Freq. | 37 | 82.9584 | 79.5983 | 86.0510 |
| Colombia | WhatsApp | No User | 37 | 57.7395 | 51.9984 | 63.3373 |
| Colombia | WhatsApp | Never | 37 | 60.7443 | 55.9539 | 65.4153 |
| Colombia | WhatsApp | Lo-Freq. | 37 | 71.4990 | 64.9087 | 77.5801 |
| Colombia | WhatsApp | Hi-Freq. | 37 | 71.4246 | 66.0349 | 76.4340 |
| Mexico | WhatsApp | No User | 39 | 79.6425 | 75.3020 | 83.5995 |
| Mexico | WhatsApp | Never | 39 | 78.2671 | 73.2136 | 82.8129 |
| Mexico | WhatsApp | Lo-Freq. | 39 | 80.0026 | 72.9030 | 86.0289 |
| Mexico | WhatsApp | Hi-Freq. | 39 | 88.9728 | 84.5881 | 92.5746 |

In line with the models results, the predictions reveal a positive relationship between frequent use of SNS and turnout of individuals of the mean age in each country. Moreover, in Colombia and Mexico, individuals who report frequently using WhatsApp and Facebook to view political information are also more likely to vote than non-users of the two platforms -represented by the dotted line in Figures 10 and 11 below. Furthermore, while Brazil's predictions are positive, they are not statistically significant.

Figure 10. Predicted Voter Turnout among Facebook Users, by Country

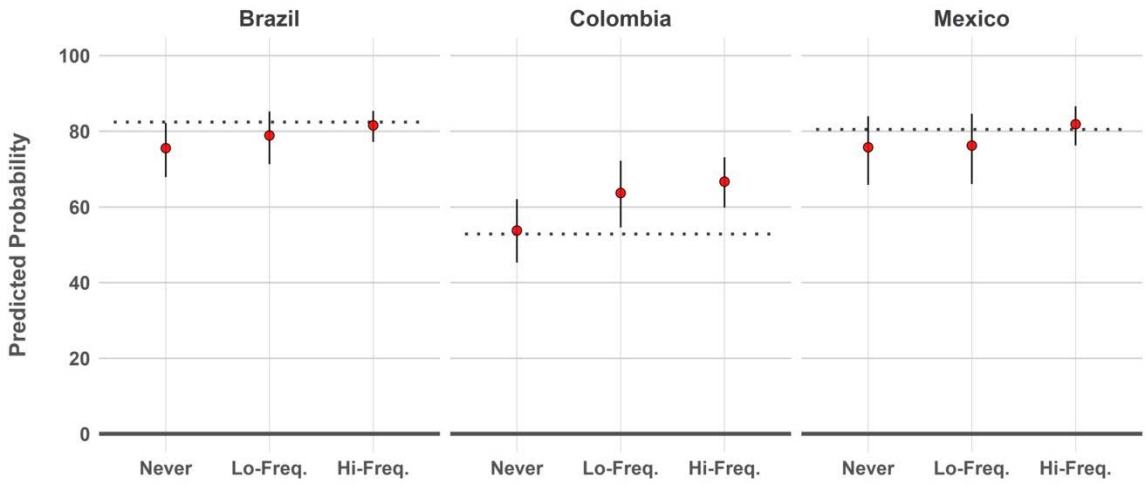



Figure 10 above also illustrates that being a Facebook user but not exchanging political information through the platform does not increase voter turnout probability vs. non-users. The slight increase seen in the predicted turnout in Colombia from non-users to those who are members but never consult political news is less than 1 percentage point. As mentioned in Chapter 3, this result is consistent with previous experiments, which revealed that the way citizens use SNS is what matters. In other words, having a Facebook account does not automatically increase the chances of an individual to show up on election day.

More specifically, country results, as described in Table 17, reveal that high political information consumption via Facebook increases the probability of voter turnout by 12.94 percentage points (or 24%) in Colombia, which is a statistically significant ($\alpha = 0.10$) result. While certainly weaker, the positive relationship remains in Brazil and Mexico, with an increase of 5.99 and 6.1 percentage points, respectively.

**Table 17. Predicted probability of voter turnout based on Intensity of Use of Facebook for Political Information purposes – Individuals of mean age from Brazil, Colombia, and Mexico**

| Country and Age of Individual | Probability of voting based on Intensity of Use of Facebook | | Difference and Direction | Statistically significant at $\alpha = 0.10$ |
|---|---|---|---|---|
| | Never | High | | Yes/No |
| Brazil – Age 37 | 75.55% | 81.54% | 5.99 ↑ | No |
| Colombia – Age 37 | 53.75% | 66.69% | 12.94 ↑ | Yes |
| Mexico – Age 39 | 75.78% | 81.88% | 6.1 ↑ | No |

Source: Own elaboration based on data provided by the Americas Barometer – Latin American Public Opinion Project (LAPOP), www.LapopSurveys.org.

When looking at WhatsApp, the effect is stronger than Facebook (except in Brazil). The predictions for Colombia and Mexico are statistically significant but different from each other. In Colombia, individuals who report low and high-frequency consumption of political information via this platform have very similar predicted probabilities of voting: 71.49 (low-freq.) vs. 71.42 (high-freq.). Nonetheless, the difference between these individuals and the 'never' group is important: more than ten percentage points. On the other hand, in Mexico, the 'never' group (78.26) is quite similar to the 'low-frequency' group (80.00). There is an important spike in the 'high-frequency group': individuals who report frequent political information consumption are 10.71 percentage points more likely to vote than those who never consult political news via WhatsApp.

Figure 11. Predicted Voter Turnout among WhatsApp Users, by Country

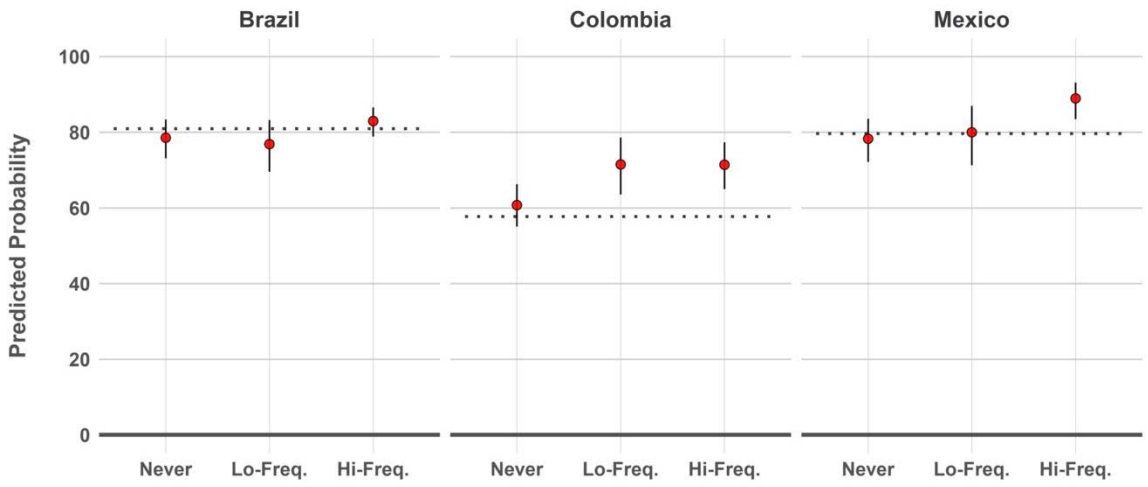



Table 18. Predicted probability of voter turnout based on Intensity of Use of WhatsApp for Political Information purposes – Individuals of mean age from Brazil, Colombia and Mexico

| Country and Age of Individual | Probability of voting based on Intensity of Use of Whatsapp | | Difference and Direction | Statistically significant at α = 0.10 |
|---|---|---|---|---|
| | Never | High | | Yes/No |
| Brazil – Age 37 | 78.55% | 82.95% | 4.4 ↑ | No |
| Colombia – Age 37 | 60.74% | 71.42% | 10.68 ↑ | Yes |
| Mexico – Age 39 | 78.26% | 88.97% | 10.71 ↑ | Yes |

Source: Own elaboration based on data provided by the Americas Barometer – Latin American Public Opinion Project (LAPOP), www.LapopSurveys.org.

When looking at the predictions for both platforms, it is possible to affirm there is a positive relationship between frequently consuming political information via Facebook and WhatsApp and electoral participation. In the three case studies, the predictions suggest that WhatsApp has a stronger effect on electoral participation than Facebook. If we compare each country, the study also reveals that the increase in the likelihood of electoral participation is higher in Colombia. In other words, we can be certain that individuals who frequently use SNS for political purposes are more likely to vote in this country. These results are consistent with previous research, such as a similar study conducted by Navia and Ulriksen in 2017, who analyzed several national opinion polls

in Chile. Among other results, they found that consuming information via traditional media and social networking sites is positively correlated with electoral participation[83].

Nonetheless, this Chapter's predictions also suggest that the possible effect of frequent SNS use for political purposes on electoral participation is lower than on civic engagement. This finding is also aligned with Navia and Ulriksen, who argued that, since the purpose of social networks is creating multidirectional communications, it makes more sense that individuals who frequently consume political information via these platforms would also be more likely to be involved in collective forms of political participation, such as meetings to improve the community (civic engagement) and activism (participating in protests). Voting, as described in Table 1 (Ekman's typology) is classified as an individual form of formal political participation. Not only is it mandatory -under normal circumstances- to cast a ballot alone, but friends are not necessarily assigned to the same polling place.

When looking at the three dependent variables (used in this paper) under this perspective, 'voting' comes up as the only *individual* form of participation. As seen in Table 18 below, participation in community meetings and protests are both collective forms of political involvement.

[83] Navia, P. y Ulriksen, C. (2017). Tuiteo, luego voto. El efecto del consumo de medios de comunicación y uso de redes sociales en la participación electoral en Chile en 2009 y 2013. Cuadernos.info, (40), 71-88. https://doi.org/10.7764/cdi.40.1049

Table 19. Forms of political participation (adapted from Table 1)

| Civic Engagement | Formal Political Participation | Activism |
|---|---|---|
| Individual Forms | | |
| Attention to politics and societal issues | Electoral participation | Signing petitions, Political consumption |
| Collective Forms | | |
| Voluntary work to improve the conditions of the community. | Organized political participation: membership in conventional political parties. | Demonstrations, strikes, protests. |

In order to validate Navia and Ulriksen's statement that SNS' use relationship is stronger in multidirectional aspects, an additional set of regressions were run, this time with a variable that is considered a collective form of participation, which, under Ekman's typology also falls under the same category as voting (formal participation). The dependent variable used is LAPOP's question cp13, which asked individuals the following: *Please tell me if you attend meetings of a political party or political organization of these organizations at least once a week, once or twice a month, once or twice a year, or never.?*

This additional statistical exercise reveals a positive association between high consumption of political information via SNS and participation in a meeting of a political party[84]. All results were statistically significant. Predictions (see Table 20) also illustrate a stronger results in comparison to those found for turnout.

[84] The results of these models can be consulted in Appendix II. Similarly, the full list of predictions are detailed in Appendix III.

Table 20. Predicted Probability of attending a meeting of a political party based on Intensity of Use of SNS – Individuals of mean ages from Brazil, Colombia, and Mexico (α = 0.10)

| Country and Age of Individual | WhatsApp | | | Facebook | | |
|---|---|---|---|---|---|---|
| | Never | High | Difference and Direction | Never | High | Difference and Direction |
| Brazil – Age 37 | 11.42% | 25.74% | 14.31↑ | 11.36% | 21.99% | 10.63 ↑ |
| Colombia – Age 37 | 9.16% | 18.61% | 9.45 ↑ | 10.36% | 22.98% | 12.62 ↑ |
| Mexico – Age 39 | 10.05% | 21.26% | 11.21↑ | 6.95% | 14.96% | 8.01 ↑ |

Source: Own elaboration based on data provided by the Americas Barometer – Latin American Public Opinion Project (LAPOP), www.LapopSurveys.org.

These results provide interesting information for future research. As Navia and Ulriksen suggested, and the analysis of each variable in this paper also reveals, frequently viewing or exchanging political information via SNS appears to have a stronger effect on political participation when it is a collective activity.

# Chapter 5. Relationship Between Social Media and Protests' Participation

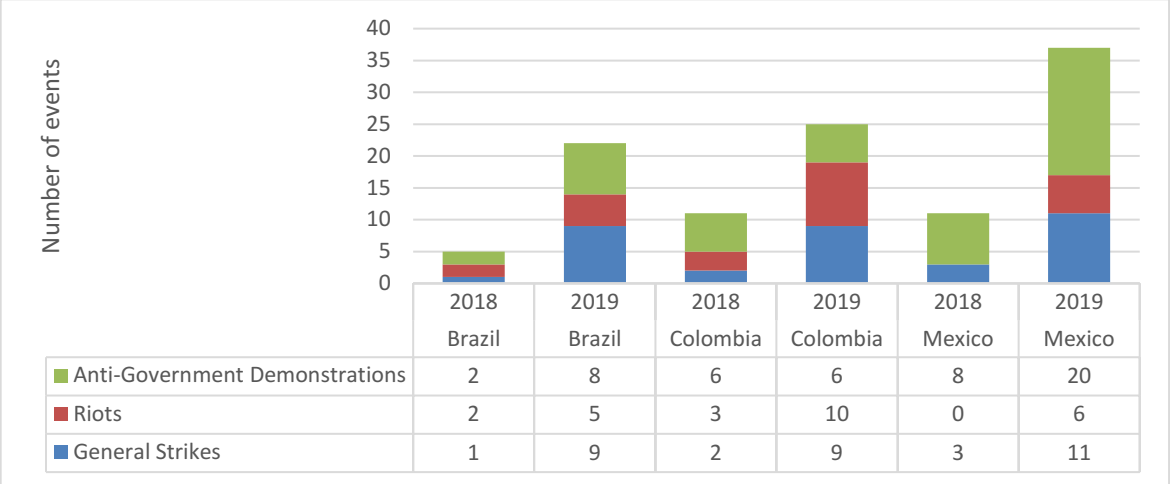
Social movements, anti-government protests, marches, strikes, and other similar activities manifest the 'people power': citizens' contesting the power of a ruler, withdrawing their support, or demanding respect for their rights[85]. Protests can be local, national, or global. They can be violent or pacific. They undoubtedly also differ in the goals they pursue. In the past, a frequent objective was to achieve independence from a foreign ruler. Later on, protests transformed into a way to seek "a total change of regime and the nature of politics," or "oust the leader and political party abusing office"[86]. While authoritarian and repressive governments still exist, and electoral-related protests also continue to occur, other modern 'causes' for protests worldwide include a call to end violence, femicides, impunity, corruption, social inequality. Other causes include promoting more progressive policies, such as abortion rights. Regardless of their objective and scope, they all represent "the ideal and experience of participatory democracy"[87].

A protest can have a significant impact. Many were crucial to achieving equal rights -under the law- to formerly discriminated groups. Examples include the Civil Rights Movement, who were protesting against the racially segregated bus system, or the Suffragettes, which advocated for women's right to vote. Moreover, the Carnegie Endowment for International Peace reports that "about 30 governments or leaders have fallen as a result" of a protest[88]. In fact, one of these cases

[85] Carter, A. (2012). People Power and Political Change. London: Routledge, https://doi-org.proxy1.library.jhu.edu/10.4324/9780203181102
[86] Ibid.
[87] Ibid.
[88] Carnegie Endowment for International Peace. Global Protest Tracker. Last updated on October 1, 2020. Accessed October 18, 2020, via https://carnegieendowment.org/publications/interactive/protest-tracker

happened not too long ago in Brazil, one of the three countries under analysis. In 2016, protests in that country led to president Dilma Rousseff's impeachment, who was charged with criminal administrative misconduct. Political analysts believe that the actions of protesters, who got organized through non-governmental organizations and political parties "had an equally profound post-protest impact, supporting the controversial election of President Jair Bolsonaro in 2018"[89]. These events happened in a context of regional "political instability and public policy tensions"[90]. A good indicator of the latter is that, between 2017 and 2020, eight out of twelve south American countries experienced significant protests[91]. Figure 12 below details the number of major national anti-government demonstrations, strikes, and riots registered in Brazil, Colombia, and Mexico in 2018 and 2019.

Figure 12 – Number of demonstrations, strikes, and riots by year.




| | 2018 Brazil | 2019 Brazil | 2018 Colombia | 2019 Colombia | 2018 Mexico | 2019 Mexico |
|---|---|---|---|---|---|---|
| Anti-Government Demonstrations | 2 | 8 | 6 | 6 | 8 | 20 |
| Riots | 2 | 5 | 3 | 10 | 0 | 6 |
| General Strikes | 1 | 9 | 2 | 9 | 3 | 11 |

Banks, Arthur S., Wilson, Kenneth A. 2020. Cross-National Time-Series Data Archive (CNTS). Databanks International. Jerusalem, Israel; see https://www.cntsdata.com.

[89] Buzasu, Cristina, Youssef Cherif, Hafsa Halawa, Ming-sho Ho, Armine Ishkanian, Maureen Kademaunga, Arthur Larok, et al. Publication. Edited by Richard Youngs. After Protest: Pathways Beyond Mass Mobilization. Carnegie Endowment for International Peace, 2019. https://carnegieendowment.org/files/Youngs_AfterProtest_final2.pdf.
[90] Cavalcanti Guerra Post-Doctoral Fellow, Lenin. "What's Going on in South America? Understanding the Wave of Protests." The Conversation US, November 14, 2019. https://theconversation.com/whats-going-on-in-south-america-understanding-the-wave-of-protests-126336.
[91] Carnegie Endowment for International Peace. Global Protest Tracker. Last updated on October 1, 2020. Retrieved October 17, 2020, from https://carnegieendowment.org/publications/interactive/protest-tracker

At the local level, numbers tend to increase. In Mexico, the Ministry of Public Security of its capital district recorded more than ten thousand demonstrations and protests between 2015 and 2017. This means that, on average, there were about nine protests per day in Mexico[92]. At least six of Mexico's largest protests were because of increasing violence and insecurity. The disappearance of 43 students from Ayotzinapa in 2014 further escalated the tensions, and anti-government demonstrations spiked, turning into a global cause. Mass gatherings of people demanding to know the whereabouts of 'the 43' were also seen in Canada, India, Argentina, and Italia, to name a few countries[93].

In Colombia, during Ivan Duque's first 533 days in office, 258 were marked by some kind of social protest. In 2018, a student strike lasted 66 days. Similarly, a judicial protest lasted 49 days. National strikes -which gather protesters of different causes- are also common in Colombia. These can last months, as in 2012, when they recorded 119 days of protests[94]. The Colombian context is more complex though, as they are working to end a conflict that dates from the 1940s[95]. The subject is so polarizing that Colombians voted NO in a 2016 national referendum, disapproving a Peace Accord with the Revolutionary Armed Forces of Colombia (FARC). It is estimated that over

[92] TeleSur Dm. (2018, February 17). Más de 10 mil manifestaciones en México en los últimos 3 años. Retrieved October 21, 2020, from https://www.telesurtv.net/news/mas-10-mil-manifestaciones-mexico-durante-ultimos-3-anos-20180217-0015.html

[93] El Universal. (2020, March 09). ¿Cuáles han sido las seis "grandes marchas" en México? Retrieved October 20, 2020, from https://www.eluniversal.com.mx/nacion/sociedad/cuales-han-sido-las-seis-grandes-marchas-en-mexico

[94] Moreno, Natalia. En 533 días desde su posesión, Iván Duque ha enfrentado 258 días de movilizaciones. January 2020. Retrieved from https://www.asuntoslegales.com.co/actualidad/en-533-dias-de-gobierno-duque-ha-enfrentado-258-dias-de-protesta-2954808

[95] Niño González, César Augusto, y "Breve historia del conflicto armado en Colombia." Revista de Paz y Conflictos 10, no. 1 (2017):327-330. Redalyc, https://www.redalyc.org/articulo.oa?id=205052042015

two hundred thousand people died from violence related to this conflict[96]. The opposing views to such a susceptible subject continue to divide people, leading to frequent and massive protests.

Protests are not a new phenomenon. They continue to be a way for people to resist something they believe to be unjust. What is evolving is the way protests get organized and how people know about them. For instance, in 1955, during the Civil Rights Moment, “they had to mimeograph 52,000 leaflets by sneaking into a university duplicating room and working all night secretly. Then, they used the 68 African-American organizations that crisscrossed the city to distribute those leaflets by hand, " in order to share information about their cause and hoping that others will join them[97]. Nowadays, social networking sites (SNS) significantly reduce the costs for mobilization, fundraising, and organizing donations, among other logistical aspects.

Moreover, today, activists can find other individuals who share common interests, even while being physically distant from each other. SNS offer the possibility of collective communication as well as the opportunity to express opinions[98], providing a powerful channel to communicate a message that can go global in a matter of minutes. A few decades ago, we had to wait for the newspapers to be printed and distributed the day after an event. Today, digital media, and particularly SNS, allows people to learn about the developments of an ongoing protest in real-time[99]. Tools inherent to SNS, such as hashtags, have created universal identifications for different

[96] The Associated Press, 2018. Colombia's Guerrilla War Killed 260,000, Report Says. [online] CBC News. Available at: <https://www.cbc.ca/news/world/colombia-guerrilla-farc-death-toll-1.4771858#:~:text=More%20than%20260%2C000%20people%20died,in%20detailed%20findings%20released%20Thursday.> [Accessed 22 October 2020].
[97] Tufekci, Zeynep. “Online Social Change: Easy to Organize, Hard to Win.” TED, October 2014. https://www.ted.com/talks/zeynep_tufekci_online_social_change_easy_to_organize_hard_to_win.
[98] Ayala, Teresa. 2014. Redes Sociales, Poder y Participación Ciudadana. Revista Austral de Ciencias Sociales 26, 2014, pp. 23-48 Universidad Austral de Chile. Available at: https://www.redalyc.org/articulo.oa?id=45931862002
[99] Stratfor. "Social Media as a Tool for Protest." February 3, 2011. Accessed October 18, 2020, via https://worldview.stratfor.com/article/social-media-tool-protest.

causes, such as #BlackLivesMatter, #MeToo, #Occupy, #Indignados, #WomensMarch, #EleNão (NotHim), #BringBackOurGirls, #Faltan43, among others. Furthermore, governments recognize the role of social media in protests. For instance, in 2011, Egypt's government cut the whole country's internet service in what is believed to be an attempt to obstruct the "organizational capabilities" of protestors[100].

Zeynep Tufekci stated that "digital awareness-raising is great because is the bedrock of changing politics"[101]. Many scholars have studied the opportunities that SNS opens for digital activism. However, while digital activism is recognized and highly valued, it is not understood as a protest event in this study. For this study, a protest occurs when people are physically gathering and "mobilizing on the streets"[102]. In this context, this chapter will exclusively look at the relationship between frequently viewing/exchanging political information via SNS and offline protests' participation.

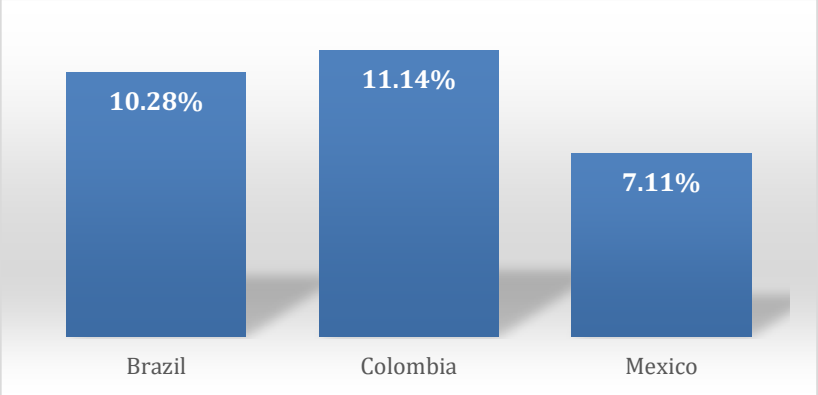
As described in the literature review, previous research studies have explored this relationship. Scholars have found that "using these services [SNS] and protest behavior are positively associated"[103]. A study that "surveyed participants in Egypt's Tahrir Square protests found that social media in general, and Facebook in particular, provided new sources of information the regime could not easily control and were crucial in shaping how citizens made individual decisions about participating in protests, the logistics of protests, and the likelihood of

[100] Stratfor. "Social Media as a Tool for Protest." February 3, 2011. Accessed October 18, 2020, via https://worldview.stratfor.com/article/social-media-tool-protest.
[101] Tufekci, Zeynep. "Online Social Change: Easy to Organize, Hard to Win." TED, October 2014. https://www.ted.com/talks/zeynep_tufekci_online_social_change_easy_to_organize_hard_to_win.
[102] Carter, A. (2012). People Power and Political Change. London: Routledge, https://doi-org.proxy1.library.jhu.edu/10.4324/9780203181102
[103] Valenzuela, S., Somma, N.M., Scherman, A. and Arriagada, A. (2016), "Social media in Latin America: deepening or bridging gaps in protest participation?", Online Information Review, Vol. 40 No. 5, pp. 695-711. https://doi.org/10.1108/OIR-11-2015-0347

success". Furthermore, the authors concluded that "social media use greatly increased the odds of a person attending a protest on the first day"[104].

In order to explore the relationship between SNS and protest participation in Brazil, Colombia, and Mexico, LAPOP's variable 'prot3' was used. LAPOP's question reads as follows: *In the last 12 months, have you participated in a demonstration or protest march?.* We know that 11.14% of citizens from Colombia participated in a demonstration or protest based on the survey responses. Similarly, 10.28% of Brazilians and 7.11% of Mexicans participated in such an event, as described in Figure 13 below.

Figure 13 – Percentage of individuals who participated in a demonstration or protest in 2018/19.

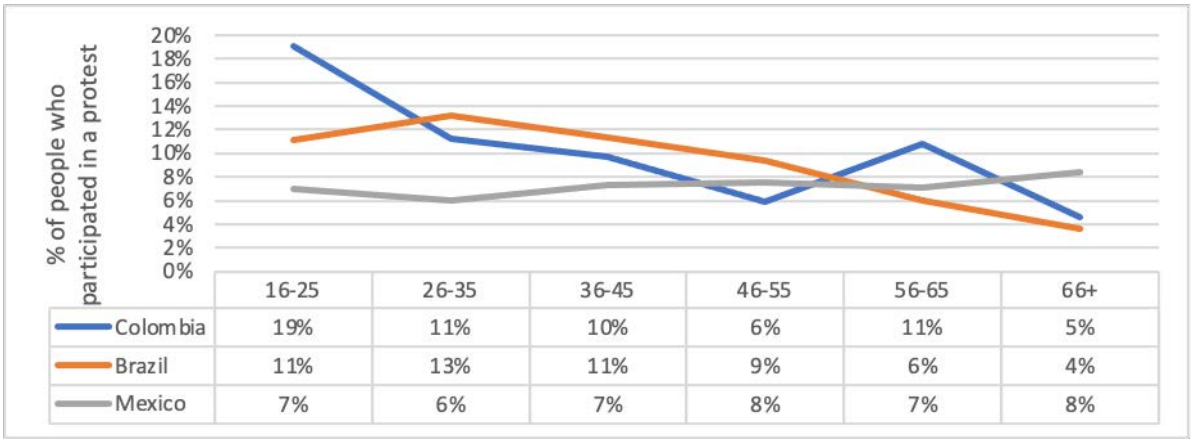



Source: Own elaboration based on data provided by the Americas Barometer – Latin American Public Opinion Project (LAPOP), www.LapopSurveys.org.

When looking at participation rates by age, younger people stand out in Colombia and Brazil. They participate much more than older citizens, as seen in Figure 14 below. Participation rates in Mexico are very similar for all ages. Furthermore, Figure 15 shows that a male presence still dominates protests.

[104] Zeynep Tufekci, Christopher Wilson, Social Media and the Decision to Participate in Political Protest: Observations From Tahrir Square, Journal of Communication, Volume 62, Issue 2, April 2012, Pages 363–379, https://doi.org/10.1111/j.1460-2466.2012.01629.x

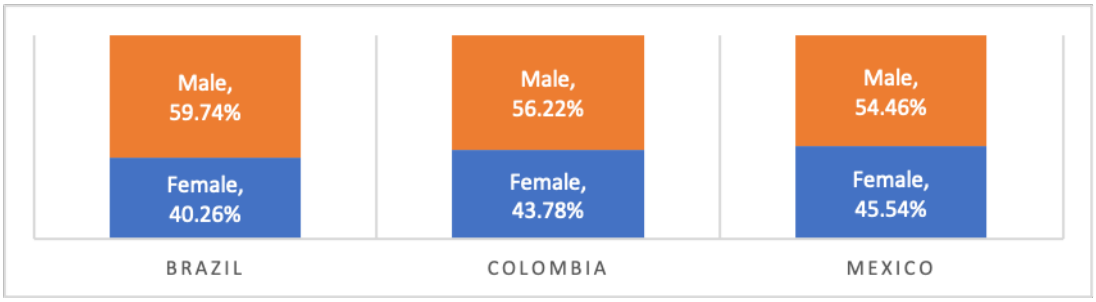
Figure 14 – Percentage of individuals who reported participating in a protest by age




| | 16-25 | 26-35 | 36-45 | 46-55 | 56-65 | 66+ |
|---|---|---|---|---|---|---|
| Colombia | 19% | 11% | 10% | 6% | 11% | 5% |
| Brazil | 11% | 13% | 11% | 9% | 6% | 4% |
| Mexico | 7% | 6% | 7% | 8% | 7% | 8% |

Source: Own elaboration based on data provided by the Americas Barometer – Latin American Public Opinion Project (LAPOP), www.LapopSurveys.org.

Figure 15 – Individuals who reported participating in a protest in 2018 by gender.




Source: Own elaboration based on data provided by the Americas Barometer – Latin American Public Opinion Project (LAPOP), www.LapopSurveys.org.

*Results*

The logistic regression models presented in Table 21 show a positive relationship between frequent exposure to political information via WhatsApp and Facebook and protests' participation in Brazil, Colombia, and Mexico. In other words, individuals from the three countries who frequently view political information via these two platforms have are more likely to join a protest compared to those who never view political information via WhatsApp and Facebook. Results are statistically significant, except for Facebook users in Mexico.

Table 21 - Use of Facebook and WhatsApp and Participation in Protests in three Latin American Countries. Logistic regression models, based on LAPOP Data.

| | Facebook | | | WhatsApp | | |
|---|---|---|---|---|---|---|
| | Brazil | Colombia | Mexico | Brazil | Colombia | Mexico |
| | Estimate (Std. error) | Estimate (Std. error) | Estimate (Std. error) | Estimate (Std. error) | Estimate (Std. error) | Estimate (Std. error) |
| Non-Users | 0.7656 (0.4223) | 0.7331* (0.3351) | 0.3721 (0.4943) | 0.4912 (0.3640) | 0.7368** (0.2441) | 0.3965 (0.3083) |
| Lo-Frequency (dummy) | 0.2263 (0.5095) | 0.6726 (0.3643) | 0.5637 (0.5956) | 0.3894 (0.3565) | 0.7042** (0.2577) | 0.6499 (0.3930) |
| Hi-Frequency (dummy) | 1.1942** 0.3872) | 1.0442*** (0.3035) | 0.4835 (0.4947) | 1.0327*** (0.2694) | 0.7047** (0.2264) | 1.0835*** (0.3055) |
| Years of Education | 0.1215*** (0.0283) | 0.0207 (0.0245) | 0.0212 (0.0279) | 0.1172*** (0.0283) | 0.0371 (0.0248) | 0.0060 (0.0275) |
| Age | -0.0093 (0.0071) | -0.0215** (0.0068) | -0.0024 (0.0074) | -0.0116 (0.0068) | -0.0265*** (0.0063) | -0.0017 (0.0071) |
| Female (dummy) | -0.4454* (0.1836) | -0.1508 (0.1656) | -0.0963 (0.2081) | -0.3450 (0.1828) | -0.1564 (0.1647) | -0.0799 (0.2064) |
| Urban area (dummy) | 0.0920 (0.3124) | 0.0329 (0.2533) | 0.1300 (0.2712) | 0.1021 (0.3101) | 0.0162 (0.2495) | 0.0370 (0.2620) |
| Attentiveness to the news | 0.0332 (0.1243) | 0.0235 (0.0940) | 0.1830 (0.1216) | 0.0507 (0.1242) | 0.0407 (0.0926) | 0.1709 (0.1224) |
| Party identification (dummy) | 1.0596*** (0.1874) | 0.7431*** (0.1753) | 1.0350*** (0.2250) | 1.0057*** (0.1869) | 0.7681*** (0.1747) | 0.9603*** (0.2227) |
| Internet at home (dummy) | 0.5351 (0.2732) | 0.4716* (0.1997) | -0.3098 (0.2291) | 0.4526 (0.2807) | 0.4994* (0.2000) | -0.2618 (0.2311) |
| Constant | -4.6590*** (0.7671) | -2.8125*** (0.5641) | -4.1280*** (0.8136) | -4.3520*** (0.7198) | -2.6159*** (0.5213) | -3.9248*** (0.7064) |
| Log-likelihood | -426.7641 | -525.8531 | -365.2347 | -431.8764 | -529.6868 | -367.4847 |
| Pseudo R-squared | 0.1182 | 0.0691 | 0.0372 | 0.1167 | 0.0701 | 0.0512 |
| AIC | 875.5281 | 1,073.7060 | 752.4695 | 885.7528 | 1,081.3730 | 756.9695 |
| BIC | 933.5702 | 1132.9846 | 811.0678 | 943.8405 | 1140.6859 | 815.5823 |
| Observations | 1,446 | 1,618 | 1,521 | 1,452 | 1,623 | 1,523 |

* p<0.05; ** p<0.01; *** p<0.001

The models include variables that control for other factors that may influence protests' participation. A statistically significant control variable in all models was party identification. While not statistically significant, the model results show that older adults participate less than younger individuals and that being a woman is negatively associated with this kind of participation.

The positive relationship between the dependent and independent variables described before can be analyzed with more precision by making predictions. These predictions were made for individuals of the sample population's mean age in each country: 37 for Brazil and Colombia, and 39 for Mexico. The full predictions table is provided below (Table 22), followed by the corresponding figures (16 and 17).

Table 22 - Predictions DV: Protest participation

| country | network | user_group | age | mean | lo_90 | up_90 |
|---|---|---|---|---|---|---|
| Brazil | Facebook | No User | 37 | 9.8976 | 6.8151 | 13.6556 |
| Brazil | Facebook | Never | 37 | 5.0725 | 2.5637 | 8.6745 |
| Brazil | Facebook | Lo-Freq. | 37 | 6.2185 | 3.2796 | 10.3250 |
| Brazil | Facebook | Hi-Freq. | 37 | 14.2736 | 11.0336 | 17.9659 |
| Colombia | Facebook | No User | 37 | 6.7849 | 4.4736 | 9.6841 |
| Colombia | Facebook | Never | 37 | 3.4622 | 1.9282 | 5.5573 |
| Colombia | Facebook | Lo-Freq. | 37 | 6.5065 | 3.8845 | 9.9441 |
| Colombia | Facebook | Hi-Freq. | 37 | 8.9833 | 6.2225 | 12.2917 |
| Mexico | Facebook | No User | 39 | 6.3769 | 4.2664 | 9.0034 |
| Mexico | Facebook | Never | 39 | 4.8625 | 1.9722 | 9.3802 |
| Mexico | Facebook | Lo-Freq. | 39 | 8.0077 | 3.8102 | 14.1031 |
| Mexico | Facebook | Hi-Freq. | 39 | 7.1198 | 4.5270 | 10.4222 |
| Brazil | WhatsApp | No User | 37 | 9.3276 | 5.6260 | 14.1098 |
| Brazil | WhatsApp | Never | 37 | 5.9016 | 3.7628 | 8.6564 |
| Brazil | WhatsApp | Lo-Freq. | 37 | 8.5064 | 5.2126 | 12.7729 |
| Brazil | WhatsApp | Hi-Freq. | 37 | 14.6955 | 11.4646 | 18.3667 |
| Colombia | WhatsApp | No User | 37 | 13.3318 | 9.4037 | 17.9759 |
| Colombia | WhatsApp | Never | 37 | 6.8534 | 4.8434 | 9.2662 |
| Colombia | WhatsApp | Lo-Freq. | 37 | 12.9820 | 8.8675 | 17.9470 |
| Colombia | WhatsApp | Hi-Freq. | 37 | 12.9116 | 9.3544 | 17.1022 |
| Mexico | WhatsApp | No User | 39 | 6.2784 | 4.1734 | 8.9184 |
| Mexico | WhatsApp | Never | 39 | 4.3821 | 2.5828 | 6.7690 |
| Mexico | WhatsApp | Lo-Freq. | 39 | 8.2153 | 4.2574 | 13.6965 |
| Mexico | WhatsApp | Hi-Freq. | 39 | 11.8219 | 7.3807 | 17.3985 |

Figure 16 – Predicted probability of protest participation among Facebook Users, by Country

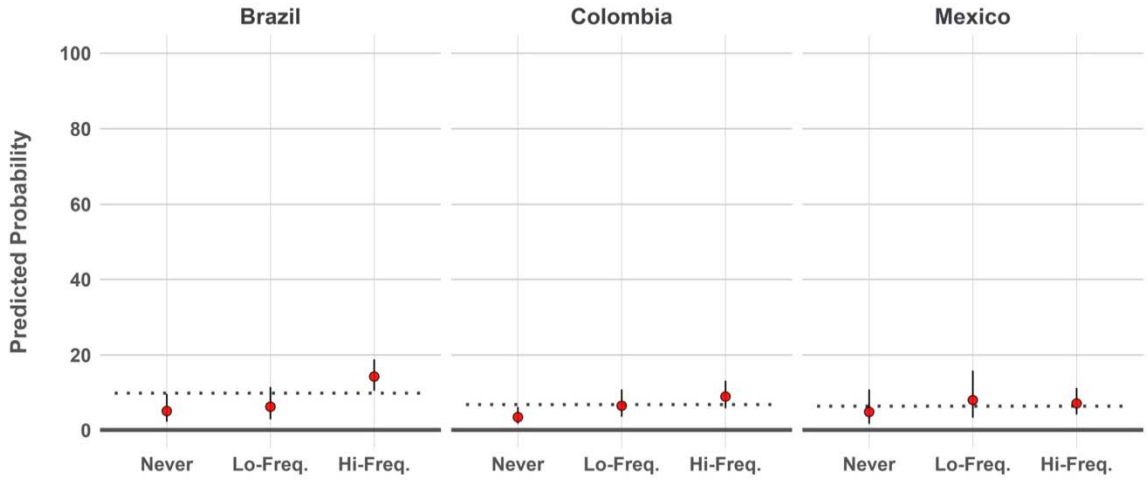
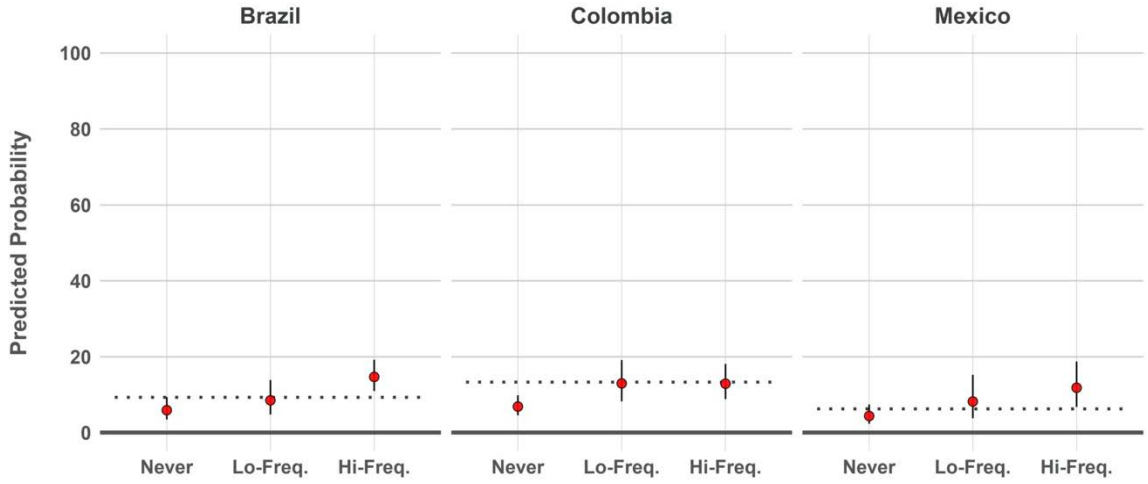



Figure 17 – Predicted probability of protest participation among WhatsApp Users, by Country




In line with the models' results, the predictions reveal a positive relationship between frequent use of SNS and the protest participation of individuals of the mean age in each country. Moreover, except for WhatsApp users in Colombia, all other models reveal that individuals who frequently use WhatsApp and Facebook to view political information are also more likely to participate in a protest than non-users of the two platforms (represented by the dotted line in Figures 16 and 17). Furthermore, the abovementioned figures illustrate that those who never

consult political information are less engaged in protests, compared to the low and high frequency groups. As mentioned in the previous chapters, this demonstrates that having a social media account does not automatically mean an individual will display increased levels of participation.

More specifically, the predictions show (see Table 23) that high political information consumption via Facebook increases the probability of protest participation by 9.20 percentage points in Brazil (181%), 5.52 percentage points in Colombia (159%), and 2.25 percentage points in Mexico (46.29%). The predictions indicate that WhatsApp increases the probability of protest participation by 8.79 percentage points in Brazil (148%), 6.05 percentage points in Colombia (or 88%), and 7.44 percentage points in Mexico (169%).

Table 23. Predicted Probability of protest participation based on Intensity of Use of SNS – Individuals of mean ages from Brazil, Colombia and Mexico (α = 0.10)

| Country and Age of Individual | WhatsApp | | | Facebook | | |
|---|---|---|---|---|---|---|
| | Never | High | Difference and Direction | Never | High | Difference and Direction |
| Brazil – Age 37 | 5.90% | 14.69% | 8.79 ↑ | 5.07% | 14.27% | 9.20↑ |
| Colombia – Age 37 | 6.85% | 12.9% | 6.05 ↑ | 3.46% | 8.98% | 5.52↑ |
| Mexico – Age 39 | 4.38% | 11.82% | 7.44 ↑ | 4.86% | 7.11% | 2.25↑ |

Source: Own elaboration based on data provided by the Americas Barometer – Latin American Public Opinion Project (LAPOP), www.LapopSurveys.org.

The results provided in this chapter are in line with the findings from several of the studies mentioned before: Valenzuela et al., Tufekci, Navia and Ulriksen, who found that individuals who frequently consume news via social media are more likely to be involved in collective forms of political participation, such as demonstrations or protests.

The literature also raises questions regarding the possible negative outcomes of relying too much on SNS for anti-government protests. Scholars argue that groups who do not have any offline structure have risks of diminishing "operational security" because their activity and

identities can be traced. Furthermore, they also highlight the danger of government-driven blackouts that can leave organizers in the dark and without tools for organization and mobilization[105]. Nonetheless, the experience in Egypt, for instance, shows that such attempts from a government not only "failed to stop the momentum of the protests," but also drove more people to the streets because, as the New York Times reported, it "was a reminder that they [Egyptians] were not free"[106]. This means that, while people had been protesting for a different reason, the fact that SNS and/or internet access was disrupted was a sufficient motive to attend a protest. The latter highlights the importance of these platforms for political participation. They are not only potential drivers of civic engagement and turnout, as discussed in previous chapters, but a form of political expression on its own.

[105] Stratfor. "Social Media as a Tool for Protest." February 3, 2011. Accessed October 18, 2020 via: https://worldview.stratfor.com/article/social-media-tool-protest.
[106] Cohen, N., 2011. Egyptians Were Unplugged, And Uncowed. [online] Nytimes.com. Available at: <https://www.nytimes.com/2011/02/21/business/media/21link.html> [Accessed 24 October 2020].

# Chapter 6. Conclusion

According to research findings, exposure to and engagement with political issues through social networking sites contributes to political participation by building more politically knowledgeable citizens. This study analyzed the relationship between recurrent use of Facebook and WhatsApp (for political purposes) and different types of political participation: civic engagement, voter turnout, and protest participation. Specifically, the author examined the participation of individuals from Brazil, Colombia, and Mexico, who frequently view or exchange political information through these platforms.

This section aims to highlight the key findings of the thesis. Furthermore, it provides areas in which the outcomes of the study might be of use and offer suggestions for future research.

The results of a quantitative analysis using regression models based on the Americas Barometer's 2018/19 survey responses finds that frequent exposure to political content through Facebook and WhatsApp is positively associated with political participation in the three countries under study. Furthermore, the study shows that frequently using SNS to view/exchange information has a stronger effect on collective actions (such as civic engagement, protesting, and attending meetings of political parties) than individual activities (such as voting). For instance, while the maximum increase seen in the predicted turnout is 24.07% (Facebook users in Colombia), the highest increase in predicted protest participation is 181% (Facebook users in Brazil). In other words, Facebook users in Brazil who are frequently exposed to political information show 2.81 times the predicted participation of individuals who never use SNS for political purposes.

When looking at significance, Colombia stands out from the rest, as results of all models are statistically significant even after controlling for age, sex, education, party identification, attentiveness to news, among others. Similarly, the results of eight out of nine WhatsApp models are statistically significant (the exception is turnout in Brazil). On the opposite side, Facebook presented no statistically significant results in any of the variables in Mexico, which might indicate some level of uncertainty about the relationship between this platform and political participation in this country.

The predictions in Chapter 3 show that the likelihood of being civically engaged for Facebook recurrent users (for political purposes)[107] is higher than of WhatsApp users. Notorious results include Colombia, which shows an increase of 87.87% in the predicted probability of civic engagement for frequent Facebook users. Similarly, the increase in Brazil is 79.92%. The results in Mexico, are different. The likelihood for civic engagement is higher for users who frequently consume political information via WhatsApp: while the increase in predicted probability of civic engagement for Facebook users is 22.93%, the increase for WhatsApp users is 69.68%.

The estimations in Chapter 4 show a positive relationship between frequently exchanging political information via SNS and voter turnout. Nonetheless, these are more moderate results than civic engagement and protest participation, which might have to do with the very nature of social media. In other words, since the purpose of social networks is creating multidirectional communications, it makes more sense that individuals who frequently consume news via these platforms would also be more likely to be involved in collective forms of political participation than

[107] When using the terms high intensity, recurrent or frequent users, the author is referring to the group of individuals who uses SNS to see political content daily or a few times a week.

in individual activities, such as voting. Despite the latter, predictions reveal that Colombians who are frequently exposed to political information via Facebook and WhatsApp are more likely to vote than those who do not use SNS for political purposes. The difference in the predicted probability between the 'never' group and the 'high intensity' group is 24.07% for Facebook and 22.5% for WhatsApp. This result is particularly promising for a country with such low[108] turnout (only 54.22% of the individuals eligible to cast a ballot voted in 2018). In Mexico, WhatsApp users who frequently consume political information via this platform are 13.68% more likely to vote than those who never do. This is greater than Facebook's 'high intensity' users, which showed an increase of 8.04%. Finally, Brazil's predictions show that the percentage of increase in the likelihood of voting for the 'high intensity' group vs. the 'never' group is 7.92% for Facebook users and 5.60% for WhatsApp users. The results from Brazil might have to do with the fact that voting is mandatory in the country, but further research would be required to confirm this.

The models in Chapter 5 illustrate that consuming political information via social media is positively associated with protest participation. The predictions for protest participation reveal stronger results when compared against turnout and civic engagement. The difference between the predicted likelihood of participating in a protest between individuals who frequently view political content via SNS and those who never do it is over 150% in all countries. In Brazil, Facebook users who recurrently view/exchange political information are 181% more likely to participate in a protest than those who never see political information via this platform. The same group (high-intensity users) in Colombia shows an increase of 159% in their predicted probability of

[108] When compared to other Latin American countries.

participating in a protest event. In Mexico, WhatsApp 'high intensity' users show an increase of 169% in their likelihood of participating in a demonstration.

In summary, the analysis described in Chapters 3, 4, and 5 found that individuals who frequently use Facebook and WhatsApp to view political information are more likely to be civically engaged, to vote and to participate in a protest than those who never access political information through these social networking sites.

This study illustrates that the predicted likelihood of political participation of individuals who have an account on social media but never view political information does not increase in comparison to non-users. These results are aligned with previous scholarly studies, which demonstrated that the positive association between social networking sites and political participation depends on how they are used. In other words, creating an account on social media is not sufficient for increased political engagement. Those who frequently use Facebook or WhatsApp to view and/or exchange political information are the ones that show an increased likelihood of participating. In fact, the predictions show that, in most cases, social media users who never view political information are less likely to participate than non-users.

This study expands existing scholarly studies that focused primarily on the use of Facebook in advanced democracies such as the United States. While these scholars found a positive relationship between frequently viewing political content via social media and political participation, little is known about this in emergent democracies such as Mexico, Brazil and Colombia. Therefore, the author contributes to the field with a study about the relationship between social media and political participation in three countries in which academic research surrounding this topic is still nascent. Moreover, this study incorporates an analysis of WhatsApp,

a social media platform that is more popular than Facebook in the three countries under analysis, but has not gained attention in the academic world. The findings of this study are similar to those conducted by other scholars in established democracies, suggesting that their results and the relevant social science theories involved can be applicable in other contexts and may also be expanded to other social networking sites.

Scholars who studied the impact of the internet on society believe the online sphere is a reflection of the offline world. This means that the political power structures are replicated in the digital space. Limiting internet access to those who can afford it can be argued is a gatekeeper for information and therefore promotes the creation of elites of informed citizens. In this context, this thesis also sheds light on policymakers regarding the importance of internet access for political participation. LAPOP survey shows that less than 50% of individuals surveyed in Colombia and Mexico had internet access at home (including tablet or cellphone). Reducing the gap in internet access will provide additional tools to access and exchange political information and, in turn, will contribute to increasing civic engagement, voter turnout, and participation in protests.

Social media has created a cyberculture. It facilitate interactions, and individuals today have higher chances of being exposed to mobilizing information. In that regard, this paper provides valuable information for electoral management bodies, authorities, and civil society organizations working in civic education projects. The predictions provide a guide with respect to what kind of platform is the most appropriate for each type of activity. For instance, it would be more strategic for local actors in Mexico to consider a partnership with WhatsApp and launch a civic education campaign rather than doing it with Facebook. Similarly, it provides a roadmap for non-governmental institutions and political parties who need to have a communication strategy

in place. Hence, they are ready to connect with their bases when they are wanted to attend a party meeting or an organized protest.

Finally, this study also raises additional questions that deserve future research. A question worth exploring will be if social networking sites' relationship with political participation differs when looking at different groups: by age or sex, for instance. This would allow policymakers, practitioners, and political parties to identify, more specifically, the individuals that are more likely to be mobilized by social media campaigns.

Furthermore, the increasing use of disinformation campaigns in social media opens another area to explore. Scholars might want to measure the impact of disinformation campaigns via social media and how it affects political participation. As described in the literature review, results from previous investigations are in some cases contradicting, so the effect of this phenomenon is still unclear. For instance, while a study from the U.S. 2016 election found that consuming false news reinforces political preferences[109], another study from the same election found that social media platforms such as Facebook, can modify the political views, attitudes and/or political preferences of its users[110]. Disinformation is an important aspect when studying the consumption of political information via social media. Nonetheless, the author of this study does not address this matter because the survey data analyzed does not provide information regarding the content, tone, veracity or even the type of political information seen or exchanged by the respondents. Consequently, additional research is necessary to address the phenomenon

[109] Guess, Andrew M., Nyhan, Brendan, and Reifler, Jason. 2018. "Selective Exposure to Misinformation: Evidence from the consumption of fake news during the 2016 U.S. presidential campaign". Available at https://about.fb.com/wp-content/uploads/2018/01/fake-news-2016.pdf

[110] Allcott, Hunt, and Gentzkow, Matthew. 2017. "Social Media and Fake News in the 2016 Election." Journal of Economic Perspectives, 31 (2): 211-36.

of disinformation. This requires further research and a different research method. More specifically, there is a need to go one step further and conduct panel studies (such as time-series design) to have more precise data, gathered after controlled interventions.

Social networking sites still have a long way to go. They are still in the consolidation process. The way we use them is also taking shape. Scholars have found that the relationship between talking about politics today and participating in the future is strong. These platforms have potential and can contribute to build a generation of more engaged citizens in the future. In order to examine with more precision the impact of social media on political participation, future research should aim to demonstrate causality, something that this study was unable to do, considering the limitations of the survey data available. As one of the reviewers of this study commented, "this could be investigated utilizing controlled experiments part of longitudinal study similar to media effect studies performed by communication strategy scholars"[111].

[111] Smith II, Michael S. *Review of the thesis "The Impact of Social Media on Political Participation: An Empirical Analysis Using Survey Data from Brazil, Colombia, and Mexico".* Presented to student on November 20, 2020.

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# Appendices

- Description of Variables (Full)

The table below provides the definition and sources of the main variables in the data. LAPOP variable names indicated with (*) are transformations of the original variable. The coding of the variables in the data is indicated in the variable Description.

| Variable name | Type | Range | LAPOP name | Definition |
|---|---|---|---|---|
| country | <character> | . | (*) pais | Country name |
| wave | <numeric> | . | wave | Survey wave |
| state | <character> | . | (*) prov | State or Department name |
| municipality | <character> | . | (*) municipio | Municipality name |
| country_code | <numeric> | . | pais | Country code, as coded by LAPOP |
| state_code | <numeric> | . | prov | State or Department code, as coded by LAPOP |
| municipality_code | <numeric> | . | municipio | Municipality code, as coded by LAPOP |
| date | <date> | . | fecha | Survey date |
| idnum | <numeric> | . | idnum | Questionnaire number |
| uniq_id | <numeric> | . | uniq_id | Unique 8-digit ID number |
| cluster | <numeric> | . | cluster | Data cluster |
| upm | <numeric> | . | upm | Primary Sampling Unit |
| wt | <numeric> | . | wt | Survey weight |
| nationality | <character> | . | (*) nationality | Respondent's nationality |
| nationality_code | <numeric> | . | nationality | Respondent's nationality code |
| strata_pri | <character> | . | (*) estratopri | Country region |
| strata_sec | <character> | . | (*) estratosec | Size of the Municipality |
| strata_pri_code | <numeric> | . | estratopri | Country region, as coded by LAPOP |
| strata_sec_code | <numeric> | . | estratosec | Size of the Municipality, as coded by LAPOP |
| tamano | <numeric> | . | tamano | Size of place |
| civic_eng | <numeric> | [0, 1] | (*) cp8 | Do you attend meetings of a community improvement committee or association?<br>Attend once a year, or more = 1<br>Never attend = 0. |
| turnout | <numeric> | [0, 1] | (*) vb2 | Did you vote in the last presidential elections?<br>Yes = 1<br>No = 0 |

| Variable name | Type | Range | LAPOP name | Definition |
|---|---|---|---|---|
| activism | <numeric> | [0, 1] | (*) prot3 | In the last 12 months, have you participated in a demonstration or protest march?<br>Participated = 1<br>Otherwise = 0 |
| facebook_group | <numeric> | [1, 4] | | Use of Facebook to see political information:<br>No User = 1, do not have an account<br>Never = 2, do not see political content<br>Lo-Freq. = 3, see political content a few times a month/year<br>Hi-Freq. = 4, see political content daily or a few times a week |
| facebook_label | <character> | . | | Use of Facebook to see political information (label) |
| whatsapp_group | <numeric> | [1, 4] | | Use of WhatsApp to see political information:<br>No User = 1, do not have an account<br>Never = 2, do not see political content<br>Lo-Freq. = 3, see political content a few times a month/year<br>Hi-Freq. = 4, see political content daily or a few times a week |
| whatsapp_label | <character> | . | | Use of WhatsApp to see political information (label) |
| fb_group_1 | <numeric> | [0, 1] | | Use of Facebook to see political information:<br>No User = 1<br>Otherwise = 0 |
| fb_group_2 | <numeric> | [0, 1] | | Use of Facebook to see political information:<br>Never see political content = 1<br>Otherwise = 0 |
| fb_group_3 | <numeric> | [0, 1] | | Use of Facebook to see political information:<br>Lo-Freq. = 1 (i.e., see political content a few times a month/year)<br>Otherwise = 0 |

| Variable name | Type | Range | LAPOP name | Definition |
|---|---|---|---|---|
| fb_group_4 | <numeric> | [0, 1] | | Use of Facebook to see political information:<br>Hi-Freq. = 1 (i.e., political content daily or a few times a week)<br>Otherwise = 0 |
| wts_group_1 | <numeric> | [0, 1] | | Use of WhatsApp to see political information:<br>No User = 1<br>Otherwise = 0 |
| wts_group_2 | <numeric> | [0, 1] | | Use of WhatsApp to see political information:<br>Never see political content = 1<br>Otherwise = 0 |
| wts_group_3 | <numeric> | [0, 1] | | Use of WhatsApp to see political information:<br>Lo-Freq. = 1 (i.e., see political content a few times a month/year)<br>Otherwise = 0 |
| wts_group_4 | <numeric> | [0, 1] | | Use of WhatsApp to see political information:<br>Hi-Freq. = 1 (i.e., political content daily or a few times a week)<br>Otherwise = 0 |
| education | <numeric> | [0, 18] | ed | How many years of schooling have you completed? |
| age | <numeric> | [16, 92] | q2 | How old are you? (in years) |
| female | <numeric> | [0, 1] | (*) q1 | Sex (recorded, but not asked)<br>Female = 1<br>Otherwise = 0 |
| urban_area | <numeric> | [0, 1] | (*) ur | Type of area<br>Urban area = 1<br>Otherwise = 0 |
| inform_cons | <numeric> | [1, 5] | gi0n | About how often do you pay attention to the news, whether on TV, the radio, newspapers or the internet?<br>Daily = 1<br>A few times a week = 2<br>A few times a month = 3<br>A few times a year = 4<br>Never = 5 |
| party_id | <numeric> | [0, 1] | (*) vb10 | Do you currently identify with a political party?<br>Yes = 1<br>No = 0 |

| Variable name | Type | Range | LAPOP name | Definition |
|---|---|---|---|---|
| internet_access | <numeric> | [0, 1] | r18 | Could you tell me if you have Internet in your home? (included phone or tablet)<br>Internet at home = 1<br>Otherwise = 0 |
| facebook | <numeric> | [0, 1] | smedia1 | Do you have a Facebook account?<br>Yes = 1<br>No = 2 |
| facebook_act | <numeric> | [1, 5] | smedia2 | How often do you see content on Facebook?<br>Daily = 1<br>A few times a week = 2<br>A few times a month = 3<br>A few times a year = 4<br>Never = 5 |
| facebook_pol | <numeric> | [1, 5] | smedia3 | How often do you see political information on Facebook?<br>Daily = 1<br>A few times a week = 2<br>A few times a month = 3<br>A few times a year = 4<br>Never = 5 |
| whatsapp | <numeric> | [0, 1] | smedia7 | Do you have a WhatsApp account?<br>Yes = 1<br>No = 2 |
| whatsapp_act | <numeric> | [1, 5] | smedia8 | How often do you see content on WhatsApp?<br>Daily = 1<br>A few times a week = 2<br>A few times a month = 3<br>A few times a year = 4<br>Never = 5 |
| whatsapp_pol | <numeric> | [1, 5] | smedia9 | How often do you see political information on WhatsApp?<br>Daily = 1<br>A few times a week = 2<br>A few times a month = 3<br>A few times a year = 4<br>Never = 5 |

- Descriptive Statistics

***Brazil***

| Statistic | min | max | range | sum | median | mean | SE. mean | CI.mean. 0.95 | var | std. dev | coef. var |
|---|---|---|---|---|---|---|---|---|---|---|---|
| civic_eng | 0 | 1 | 1 | 301 | 0 | 0.20 | 0.01 | 0.02 | 0.16 | 0.40 | 1.99 |
| turnout | 0 | 1 | 1 | 1151 | 1 | 0.77 | 0.01 | 0.02 | 0.18 | 0.42 | 0.55 |
| protest | 0 | 1 | 1 | 154 | 0 | 0.10 | 0.01 | 0.02 | 0.09 | 0.30 | 2.95 |
| fb_group_1 | 0 | 1 | 1 | 592 | 0 | 0.40 | 0.01 | 0.03 | 0.24 | 0.49 | 1.22 |
| fb_group_2 | 0 | 1 | 1 | 167 | 0 | 0.11 | 0.01 | 0.02 | 0.10 | 0.32 | 2.80 |
| fb_group_3 | 0 | 1 | 1 | 146 | 0 | 0.10 | 0.01 | 0.02 | 0.09 | 0.30 | 3.02 |
| fb_group_4 | 0 | 1 | 1 | 571 | 0 | 0.39 | 0.01 | 0.02 | 0.24 | 0.49 | 1.26 |
| wts_group_1 | 0 | 1 | 1 | 373 | 0 | 0.25 | 0.01 | 0.02 | 0.19 | 0.43 | 1.73 |
| wts_group_2 | 0 | 1 | 1 | 378 | 0 | 0.25 | 0.01 | 0.02 | 0.19 | 0.44 | 1.72 |
| wts_group_3 | 0 | 1 | 1 | 179 | 0 | 0.12 | 0.01 | 0.02 | 0.11 | 0.33 | 2.71 |
| wts_group_4 | 0 | 1 | 1 | 560 | 0 | 0.38 | 0.01 | 0.02 | 0.23 | 0.48 | 1.29 |
| education | 0 | 17 | 17 | 13213 | 10 | 8.93 | 0.10 | 0.20 | 14.85 | 3.85 | 0.43 |
| age | 16 | 92 | 76 | 58645 | 37 | 39.15 | 0.42 | 0.82 | 264.02 | 16.25 | 0.42 |
| female | 0 | 1 | 1 | 750 | 1 | 0.50 | 0.01 | 0.03 | 0.25 | 0.50 | 1.00 |
| urban_area | 0 | 1 | 1 | 1294 | 1 | 0.86 | 0.01 | 0.02 | 0.12 | 0.34 | 0.40 |
| inform_cons | 1 | 5 | 4 | 6744 | 5 | 4.52 | 0.02 | 0.05 | 0.84 | 0.91 | 0.20 |
| party_id | 0 | 1 | 1 | 349 | 0 | 0.23 | 0.01 | 0.02 | 0.18 | 0.42 | 1.81 |
| internet_access | 0 | 1 | 1 | 1069 | 1 | 0.71 | 0.01 | 0.02 | 0.20 | 0.45 | 0.63 |

## *Colombia*

| Statistic | min | max | range | sum | median | mean | SE.mean | CI.mean.0.95 | var | std.dev | coef.var |
|---|---|---|---|---|---|---|---|---|---|---|---|
| civic_eng | 0 | 1 | 1 | 548 | 0 | 0.33 | 0.01 | 0.02 | 0.22 | 0.47 | 1.42 |
| turnout | 0 | 1 | 1 | 1113 | 1 | 0.67 | 0.01 | 0.02 | 0.22 | 0.47 | 0.70 |
| protest | 0 | 1 | 1 | 185 | 0 | 0.11 | 0.01 | 0.02 | 0.10 | 0.31 | 2.83 |
| fb_group_1 | 0 | 1 | 1 | 655 | 0 | 0.40 | 0.01 | 0.02 | 0.24 | 0.49 | 1.23 |
| fb_group_2 | 0 | 1 | 1 | 255 | 0 | 0.15 | 0.01 | 0.02 | 0.13 | 0.36 | 2.34 |
| fb_group_3 | 0 | 1 | 1 | 190 | 0 | 0.12 | 0.01 | 0.02 | 0.10 | 0.32 | 2.77 |
| fb_group_4 | 0 | 1 | 1 | 548 | 0 | 0.33 | 0.01 | 0.02 | 0.22 | 0.47 | 1.42 |
| wts_group_1 | 0 | 1 | 1 | 604 | 0 | 0.36 | 0.01 | 0.02 | 0.23 | 0.48 | 1.32 |
| wts_group_2 | 0 | 1 | 1 | 535 | 0 | 0.32 | 0.01 | 0.02 | 0.22 | 0.47 | 1.45 |
| wts_group_3 | 0 | 1 | 1 | 192 | 0 | 0.12 | 0.01 | 0.02 | 0.10 | 0.32 | 2.76 |
| wts_group_4 | 0 | 1 | 1 | 325 | 0 | 0.20 | 0.01 | 0.02 | 0.16 | 0.40 | 2.02 |
| education | 0 | 18 | 18 | 16312 | 11 | 9.89 | 0.11 | 0.21 | 18.72 | 4.33 | 0.44 |
| age | 18 | 90 | 72 | 67112 | 37 | 40.36 | 0.40 | 0.79 | 266.66 | 16.33 | 0.40 |
| female | 0 | 1 | 1 | 833 | 1 | 0.50 | 0.01 | 0.02 | 0.25 | 0.50 | 1.00 |
| urban_area | 0 | 1 | 1 | 1323 | 1 | 0.80 | 0.01 | 0.02 | 0.16 | 0.40 | 0.51 |
| inform_cons | 1 | 5 | 4 | 7198 | 5 | 4.33 | 0.02 | 0.05 | 1.03 | 1.01 | 0.23 |
| party_id | 0 | 1 | 1 | 431 | 0 | 0.26 | 0.01 | 0.02 | 0.19 | 0.44 | 1.69 |
| internet_access | 0 | 1 | 1 | 823 | 0 | 0.50 | 0.01 | 0.02 | 0.25 | 0.50 | 1.01 |

## Mexico

| Statistic | min | max | range | sum | median | mean | SE.mean | CI.mean.0.95 | var | std.dev | coef.var |
|---|---|---|---|---|---|---|---|---|---|---|---|
| civic_eng | 0 | 1 | 1 | 462 | 0 | 0.295 | 0.0115 | 0.023 | 0.208 | 0.46 | 1.55 |
| turnout | 0 | 1 | 1 | 1260 | 1 | 0.799 | 0.0101 | 0.020 | 0.160 | 0.40 | 0.50 |
| protest | 0 | 1 | 1 | 112 | 0 | 0.071 | 0.0065 | 0.013 | 0.066 | 0.26 | 3.62 |
| fb_group_1 | 0 | 1 | 1 | 807 | 1 | 0.517 | 0.0127 | 0.025 | 0.250 | 0.50 | 0.97 |
| fb_group_2 | 0 | 1 | 1 | 116 | 0 | 0.074 | 0.0066 | 0.013 | 0.069 | 0.26 | 3.53 |
| fb_group_3 | 0 | 1 | 1 | 103 | 0 | 0.066 | 0.0063 | 0.012 | 0.062 | 0.25 | 3.76 |
| fb_group_4 | 0 | 1 | 1 | 535 | 0 | 0.343 | 0.0120 | 0.024 | 0.225 | 0.47 | 1.39 |
| wts_group_1 | 0 | 1 | 1 | 701 | 0 | 0.447 | 0.0126 | 0.025 | 0.247 | 0.50 | 1.11 |
| wts_group_2 | 0 | 1 | 1 | 480 | 0 | 0.306 | 0.0116 | 0.023 | 0.213 | 0.46 | 1.51 |
| wts_group_3 | 0 | 1 | 1 | 144 | 0 | 0.092 | 0.0073 | 0.014 | 0.083 | 0.29 | 3.15 |
| wts_group_4 | 0 | 1 | 1 | 243 | 0 | 0.155 | 0.0091 | 0.018 | 0.131 | 0.36 | 2.34 |
| education | 0 | 18 | 18 | 15439 | 9 | 9.846 | 0.1102 | 0.216 | 19.050 | 4.36 | 0.44 |
| age | 18 | 88 | 70 | 66507 | 40 | 42.093 | 0.4283 | 0.840 | 289.903 | 17.03 | 0.40 |
| female | 0 | 1 | 1 | 805 | 1 | 0.509 | 0.0126 | 0.025 | 0.250 | 0.50 | 0.98 |
| urban_area | 0 | 1 | 1 | 1263 | 1 | 0.799 | 0.0101 | 0.020 | 0.160 | 0.40 | 0.50 |
| inform_cons | 1 | 5 | 4 | 6694 | 5 | 4.269 | 0.0259 | 0.051 | 1.052 | 1.03 | 0.24 |
| party_id | 0 | 1 | 1 | 311 | 0 | 0.198 | 0.0100 | 0.020 | 0.159 | 0.40 | 2.02 |
| internet_access | 0 | 1 | 1 | 720 | 0 | 0.457 | 0.0126 | 0.025 | 0.248 | 0.50 | 1.09 |

- Models' Results - Participation in Meetings of Political Parties

Use of Facebook and WhatsApp and Participation in Political Parties' Meetings in three Latin American Countries. Logistic regression models, based on LAPOP Data.

| | Facebook | | | WhatsApp | | |
|---|---|---|---|---|---|---|
| | Brazil | Colombia | Mexico | Brazil | Colombia | Mexico |
| | Estimate (Std. error) | Estimate (Std. error) | Estimate (Std. error) | Estimate (Std. error) | Estimate (Std. error) | Estimate (Std. error) |
| Non-Users | 0.5532* (0.2805) | 0.4134 (0.2398) | 0.8615* (0.3890) | 0.5470* (0.2357) | 0.3897* (0.1831) | 0.4076* (0.2036) |
| Lo-Frequency (dummy) | 0.9854** (0.3089) | 0.3997 (0.2841) | 1.0289* (0.4560) | 0.5755* (0.2493) | 0.5409* (0.2167) | 0.3601 (0.2852) |
| Hi-Frequency (dummy) | 0.8094** (0.2628) | 0.9626*** (0.2265) | 0.9130* (0.3924) | 0.9991*** (0.1936) | 0.8212*** (0.1802) | 0.8851*** (0.2194) |
| Years of Education | -0.0553** (0.0213) | 0.0078 (0.0184) | -0.0457* (0.0195) | -0.0586** (0.0215) | 0.0110 (0.0185) | -0.0493* (0.0196) |
| Age | -0.0153** (0.0051) | 0.0078 (0.0049) | 0.0009 (0.0051) | -0.0178*** (0.0049) | 0.0033 (0.0045) | -0.0012 (0.0050) |
| Female (dummy) | -0.3199* (0.1336) | -0.1863 (0.1274) | 0.0343 (0.1426) | -0.2767* (0.1345) | -0.1962 (0.1267) | 0.0642 (0.1433) |
| Urban area (dummy) | -0.1796 (0.1937) | -0.6528*** (0.1657) | -0.3306 (0.1698) | -0.1291 (0.1947) | -0.6079*** (0.1644) | -0.3587* (0.1697) |
| Attentiveness to the news | -0.0810 (0.0730) | 0.0938 (0.0707) | 0.0791 (0.0745) | -0.1184 (0.0728) | 0.1305 (0.0711) | 0.0510 (0.0744) |
| Party identification (dummy) | 0.7656*** (0.1461) | 1.1938*** (0.1333) | 1.0403*** (0.1601) | 0.6422*** (0.1476) | 1.1808*** (0.1328) | 1.0687*** (0.1604) |
| Internet at home (dummy) | 0.2102 (0.1696) | -0.3793* (0.1518) | -0.0317 (0.1558) | 0.1811 (0.1763) | -0.3323* (0.1511) | -0.0408 (0.1591) |
| Constant | -0.5862 | -2.1840*** | -2.3847*** | -0.2765 (0.4439) | -2.0647*** (0.3921) | -1.6763*** (0.4526) |
| Log-likelihood | -708.0625 | -785.2753 | -650.5677 | -704.5173 | -791.8548 | -644.5705 |
| Pseudo R-squared | 0.0454 | 0.0947 | 0.0502 | 0.0537 | 0.0912 | 0.0592 |
| AIC | 1438.1250 | 1592.5506 | 1323.1355 | 1,431.0350 | 1,605.7100 | 1,311.1410 |
| BIC | 1496.1061 | 1651.6991 | 1381.6248 | 1489.0615 | 1664.8993 | 1369.6376 |
| Observations | 1,438 | 1,599 | 1,506 | 1,444 | 1,605 | 1,507 |

* p<0.05; ** p<0.01; *** p<0.001

- Predictions - Participation in Meetings of Political Parties

| country | network | user_group | age | mean | lo_90 | up_90 |
|---|---|---|---|---|---|---|
| Brazil | Facebook | No User | 37 | 17.9679 | 14.1069 | 22.2994 |
| Brazil | Facebook | Never | 37 | 11.3600 | 7.5238 | 16.0244 |
| Brazil | Facebook | Lo-Freq. | 37 | 25.2750 | 19.1098 | 32.1253 |
| Brazil | Facebook | Hi-Freq. | 37 | 21.9922 | 18.3424 | 25.9183 |
| Colombia | Facebook | No User | 37 | 14.7443 | 11.2098 | 18.7281 |
| Colombia | Facebook | Never | 37 | 10.3667 | 7.1355 | 14.2525 |
| Colombia | Facebook | Lo-Freq. | 37 | 14.6729 | 10.1741 | 19.9944 |
| Colombia | Facebook | Hi-Freq. | 37 | 22.9847 | 18.3453 | 28.0721 |
| Mexico | Facebook | No User | 39 | 14.3060 | 11.1742 | 17.8213 |
| Mexico | Facebook | Never | 39 | 6.9540 | 3.5708 | 11.7789 |
| Mexico | Facebook | Lo-Freq. | 39 | 16.7703 | 10.6810 | 24.3398 |
| Mexico | Facebook | Hi-Freq. | 39 | 14.9682 | 11.2462 | 19.1988 |
| Brazil | WhatsApp | No User | 37 | 18.2198 | 13.5012 | 23.6211 |
| Brazil | WhatsApp | Never | 37 | 11.4282 | 8.5688 | 14.7665 |
| Brazil | WhatsApp | Lo-Freq. | 37 | 18.6605 | 13.7929 | 24.2211 |
| Brazil | WhatsApp | Hi-Freq. | 37 | 25.7432 | 21.8711 | 29.8365 |
| Colombia | WhatsApp | No User | 37 | 12.9718 | 9.7293 | 16.6648 |
| Colombia | WhatsApp | Never | 37 | 9.1619 | 7.0157 | 11.6558 |
| Colombia | WhatsApp | Lo-Freq. | 37 | 14.8081 | 10.7442 | 19.5369 |
| Colombia | WhatsApp | Hi-Freq. | 37 | 18.6102 | 14.6301 | 23.0634 |
| Mexico | WhatsApp | No User | 39 | 14.3000 | 11.1174 | 17.8898 |
| Mexico | WhatsApp | Never | 39 | 10.0511 | 7.2720 | 13.2924 |
| Mexico | WhatsApp | Lo-Freq. | 39 | 13.9741 | 8.9585 | 20.1670 |
| Mexico | WhatsApp | Hi-Freq. | 39 | 21.2676 | 15.6458 | 27.6239 |

- Models' Results without controls

Use of Facebook and WhatsApp and Civic Engagement in three Latin American Countries. Logistic regression models, based on LAPOP Data.

| | Facebook | | | WhatsApp | | |
|---|---|---|---|---|---|---|
| | Brazil | Colombia | Mexico | Brazil | Colombia | Mexico |
| | Estimate (Std. error) | Estimate (Std. error) | Estimate (Std. error) | Estimate (Std. error) | Estimate (Std. error) | Estimate (Std. error) |
| Non-Users | 0.9012*** (0.2682) | 0.8396** (0.1753) | 0.5290* (0.2385) | 0.6861*** (0.1925) | 0.4352*** (0.1296) | 0.5615*** (0.1387) |
| Lo-Frequency (dummy) | 0.4234 (0.3376) | 0.6208** (0.2199) | 0.2957 (0.3165) | 0.0482 (0.2596) | 0.2364 (0.1833) | 0.4579* (0.2138) |
| Hi-Frequency (dummy) | 0.8119** (0.2697) | 0.7260*** (0.1796) | 0.3435 (0.2457) | 0.6347*** (0.1799) | 0.5487*** (0.1502) | 0.8579*** (0.1731) |
| Constant | -2.1001*** (0.2497) | -1.3620*** (0.1554) | -1.2809*** (0.2261) | -1.8139*** (0.1496) | -1.0007*** (0.0978) | -1.3118*** (0.1121) |
| Log-likelihood | -735.2260 | -1,029.1440 | -938.3450 | -732.9073 | -1,038.3660 | -927.7787 |
| Pseudo R-squared | 0.0107 | 0.0124 | 0.0036 | 0.0141 | 0.0082 | 0.0152 |
| AIC | 1,478.4520 | 2,066.2880 | 1,884.6900 | 1,473.8140 | 2,084.7320 | 1,863.5570 |
| BIC | 1499.6159 | 2087.8977 | 1906.0741 | 1494.9975 | 2106.3587 | 1884.9441 |
| Observations | 1,467 | 1,640 | 1,550 | 1,474 | 1,647 | 1,551 |

* p<0.05; ** p<0.01; *** p<0.001

Use of Facebook and WhatsApp and Electoral Participation in three Latin American Countries. Logistic regression models, based on LAPOP Data.

| | Facebook | | | WhatsApp | | |
|---|---|---|---|---|---|---|
| | Brazil | Colombia | Mexico | Brazil | Colombia | Mexico |
| | Estimate (Std. error) | Estimate (Std. error) | Estimate (Std. error) | Estimate (Std. error) | Estimate (Std. error) | Estimate (Std. error) |
| Non-Users | 0.4861* (0.1957) | 0.3962** (0.1521) | 0.5480* (0.2295) | 0.0813 (0.1684) | 0.1523 (0.1238) | 0.4207** (0.1437) |
| Lo-Frequency (dummy) | 0.1528 (0.2503) | 0.2737 (0.1981) | -0.1660 (0.3003) | -0.1497 (0.2023) | 0.5231** (0.1862) | 0.1004 (0.2225) |
| Hi-Frequency (dummy) | 0.4708* (0.1964) | 0.5698*** (0.1584) | 0.3292 (0.2354) | 0.4592** (0.1606) | 0.5762*** (0.1554) | 0.9203*** (0.2240) |
| Constant | 0.8218*** (0.1680) | 0.3338** (0.1272) | 1.0087*** (0.2098) | 1.0427*** (0.1175) | 0.4939*** (0.0893) | 1.0737*** (0.1049) |
| Log-likelihood | -792.4793 | -1,038.1660 | -775.0246 | -796.0586 | -1,036.9000 | -769.3003 |
| Pseudo R-squared | 0.0052 | 0.0064 | 0.0081 | 0.0084 | 0.0088 | 0.0139 |
| AIC | 1,592.9590 | 2,084.3320 | 1,558.0490 | 1,600.1170 | 2,081.8010 | 1,546.6010 |
| BIC | 1614.1470 | 2105.9587 | 1579.4514 | 1621.3326 | 2103.4396 | 1568.0052 |
| Observations | 1,476 | 1,647 | 1,557 | 1,486 | 1,652 | 1,558 |

* p<0.05; ** p<0.01; *** p<0.001

Use of Facebook and WhatsApp and Participation in Protests in three Latin American Countries. Logistic regression models, based on LAPOP Data.

| | Facebook | | | WhatsApp | | |
|---|---|---|---|---|---|---|
| | Brazil | Colombia | Mexico | Brazil | Colombia | Mexico |
| | Estimate (Std. error) | Estimate (Std. error) | Estimate (Std. error) | Estimate (Std. error) | Estimate (Std. error) | Estimate (Std. error) |
| Non-Users | 0.2832 (0.4001) | 0.3117 (0.3131) | 0.4399 (0.4788) | 0.0683 (0.3291) | 0.1011 (0.2144) | 0.4580 (0.2695) |
| Lo-Frequency (dummy) | 0.2667 (0.4997) | 0.8632* (0.3536) | 0.6166 (0.5870) | 0.6823* (0.3471) | 0.8990*** (0.2470) | 0.5877 (0.3850) |
| Hi-Frequency (dummy) | 1.4153*** (0.3789) | 1.3215*** (0.2966) | 0.6538 (0.4841) | 1.3842*** (0.2604) | 0.8442*** (0.2172) | 1.2343*** (0.2913) |
| Constant | -2.9895*** (0.3623) | -2.8457*** (0.2749) | -3.0910*** (0.4572) | -2.9305*** (0.2354) | -2.4352*** (0.1590) | -3.0802*** (0.2231) |
| Log-likelihood | -466.0282 | -553.1922 | -393.6567 | -468.3705 | -566.1633 | -393.3194 |
| Pseudo R-squared | 0.0476 | 0.0369 | 0.0033 | 0.0524 | 0.0224 | 0.0234 |
| AIC | 940.0564 | 1,114.3840 | 795.3134 | 944.7410 | 1,140.3270 | 794.6387 |
| BIC | 961.2421 | 1136.0088 | 816.7154 | 965.9429 | 1161.9631 | 816.0433 |
| Observations | 1,475 | 1,646 | 1,557 | 1,481 | 1,651 | 1,558 |

* p<0.05; ** p<0.01; *** p<0.001

# About the Author

Stella Yerutí Méndez works monitoring elections in the Western Hemisphere. Since 2012, she has participated in 28 Electoral Observation Missions in over ten countries of the region. In her professional and academic pursuits, she seeks to increase her knowledge and experience in the field of electoral systems, political participation, and tools for electoral mobilization, such as social networking sites. A native from Paraguay, she graduated with honors from the University of Maryland University College, where she received her B.A. in Political Science. She is a member of the Pi Gamma Mu International Honor Society in Social Sciences. This work marks the completion of a Master of Arts in Government from Johns Hopkins University.